

# Limited Subsurface Investigation

6909 Ryan Drive Property  
Austin, Travis County, Texas  
January 22, 2020  
Terracon Project No. 96197913



**Prepared for:**  
**City of Austin**  
**Office of Real Estate Services**  
**Austin, Texas**

**Prepared by:**  
Terracon Consultants, Inc.  
Austin, Texas

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**Terracon**

Geotechnical   ■   Environmental   ■   Construction Materials   ■   Facilities

January 22, 2020

City of Austin  
Office of Real Estate Services  
P.O. Box 1088  
Austin, TX 78767

Attn: Mr. Justin Steinhauer  
P: (512) 974-7090  
E: [Justin.Steinbauer@austintexas.gov](mailto:Justin.Steinbauer@austintexas.gov)

RE: Limited Subsurface Investigation  
6909 Ryan Drive Property  
6909 Ryan Drive  
Austin, Travis County, Texas 78757  
File No. 3111.472  
Assignment No. 119-358  
Terracon Project No. 96197913

Dear Mr. Steinhauer:

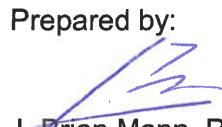
Terracon Consultants, Inc. (Terracon) is pleased to provide the enclosed Limited Subsurface Investigation (LSI), prepared for the referenced property. The LSI was completed in general accordance with Terracon Proposal No. P96197913, dated November 5, 2019.

We appreciate the opportunity to perform these services for you. Please do not hesitate to contact either of the undersigned if you have questions regarding this project.

Sincerely,

**Terracon Consultants, Inc.**

Prepared by:

  
J. Brian Mann, REM  
Project Manager

Reviewed by:

  
Russell C. Ford, P.G.  
Senior Associate

Enclosure

Responsive ■ Resourceful ■ Reliable

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## LIMITED SUBSURFACE INVESTIGATION

**6909 Ryan Drive Property  
Austin, Travis County, Texas 78757  
File No. 3111.472  
Assignment No. 119-358  
Austin, Travis County, Texas  
Terracon Project No. 96197913  
January 22, 2020**

## 1.0 INTRODUCTION

### 1.1 Site Description

<b>Site Name</b>	6909 Ryan Drive Property
<b>Site Location/Address</b>	6909 Ryan Drive, Austin, Travis County, Texas
<b>Land Area</b>	Approximately 5.602-acres
<b>Site Improvements</b>	Multiple Warehouse buildings

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map.

### 1.2 Scope of Work

Terracon Consultants, Inc. (Terracon) conducted a Limited Subsurface Investigation (LSI) at the 6909 Ryan Drive Property project site in Austin, Travis County Texas (site). The scope of work was developed based on the results of our Phase I Environmental Site Assessment (ESA) dated May 20, 2013 (Project No. 96137207). The ESA identified the following Recognized Environmental Conditions (RECs) or Controlled RECs (CREC) were identified in connection with the site which require further investigation:

- Former on-site commercial-type tenants;
- Former on-site automotive shop;
- Former City of Austin Historical underground storage tanks (USTs) documented on-site;
- Known off-site groundwater plume associated with the former Huntsman Chemical/Texaco Chemical facility.

The objective of the LSI was to investigate the soil, groundwater, and soil gas at the site for evidence of constituents of concern (COCs) that may have been released from the above RECs. The LSI was conducted in general accordance with Terracon Proposal No. P96197913, dated November 5, 2019.

### **1.3 Standard of Care**

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-97.

### **1.4 Additional Scope Limitations**

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

### **1.5 Reliance**

This report has been prepared for the exclusive use and reliance of the City of Austin. Use or reliance by any other party is prohibited without the written authorization of the City of Austin and Terracon Consultants, Inc. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, LSI report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

## **2.0 FIELD ACTIVITIES**

### **2.1 Soil Gas Monitoring Points, Soil Borings, and Groundwater Monitoring Wells**

Terracon's field activities were initiated on December 12, 2019 by Mr. Cody Pulliam and Ms. Morgan Reeves of Terracon. Greater than 48 hours prior to commencing the field activities, Terracon contacted a utility locator (1-800-245-4545) to arrange for underground utility locates at the site. As part of the approved scope of work, four soil borings/groundwater monitoring wells and four soil gas monitoring points were installed at the site.

Exhibit 2 in Appendix A is a Site Diagram depicting the site boundaries, locations of the soil borings/monitoring wells (MW-1 through MW-5) and soil gas monitoring points (SV-1 through SV-5) as well as other pertinent site features.

Soil boring/groundwater monitoring wells MW-1, MW-2, MW-4, and MW-5 were installed near the four corners of the site. MW-3 was installed near the center of the site, near the former tankhold for the USTs. Soil gas monitoring points, SV-1 through SV-5 were installed adjacent to the corresponding soil borings/monitoring wells.

Drilling services were performed by a State of Texas licensed monitoring well driller with a track mounted drilling rig utilizing direct push technology (DPT) and solid flight auger drilling techniques. Drilling augers and other equipment were cleaned using a high-pressure washer prior to beginning the project. The soil borings/monitoring wells were advanced to depths ranging from 25 feet to 30 feet below ground surface (bgs).

Samples were collected continuously and observed to document lithology, color, moisture content and sensory evidence of impairment. The samples were field-screened using a photoionization detector (PID – MiniRAE 3000) to indicate the presence of volatile organic compounds (VOCs).

The general lithology encountered at the site consisted of silty clays with gravel on top of the underlying bedrock (limestone). Limestone bedrock was observed at depths ranging from 3 feet to 7 feet bgs. No groundwater was observed in MW-1 through MW-4 during the drilling activities. Groundwater was observed in MW-5 at approximately 18 feet bgs. Detailed lithologic descriptions of the soil borings are presented in the boring logs included in Appendix B.

Subsequent to advancement, the soil borings were converted to groundwater monitoring wells using the following methodology:

- Installation of 20 feet of 2-inch diameter, 0.010-inch machine-slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch diameter, threaded, flush joint PVC riser pipe from the well screen to the ground surface;
- Addition of a pre-sieved, graded, annular silica sand pack from the bottom of the boring to approximately 1 foot above the top of the well screen;
- Addition of hydrated bentonite seal and concrete seal above the sand pack filter zone;
- Construction of a concrete surface completion with a bolt down well cover.

Construction details for the groundwater monitoring wells are presented on the boring log included in Appendix B.

The temporary soil gas monitoring points were installed adjacent to each corresponding monitoring well (see Exhibit 2). A 2-inch diameter rod was pushed to with the Geoprobe® rig to a depth of five feet bgs. An approximate one foot long, 1-inch diameter, slotted PVC screen was connected to an approximate six-foot long, 1/4-inch diameter, length of polyethylene tubing. The screen and tubing were then lowered to the bottom of each boring. A sand filter pack was then placed to approximately 6-inches above the top of the screened section and the remaining annulus was sealed with hydrated bentonite to the ground surface.

## **2.2 Soil Sampling**

As part of the approved scope of work, two soil samples were selected for laboratory analysis from each soil boring/groundwater monitoring well. A shallow soil sample was collected from depths ranging from 4 to 6 feet bgs in each of the borings. Deeper samples were collected at the apparent capillary fringe at depths ranging from 18 to 25 feet bgs in MW-1 through MW-4 of each boring and at 14 to 15 feet bgs in MW-5.

The soil samples were collected in laboratory-prepared glassware and placed in a cooler with ice. The sample cooler with completed chain-of-custody forms were transported, by FedEx, to Pace Analytical National Center for Testing and Innovation (Pace) in Mount Juliet, Tennessee.

Soil cuttings generated during the field activities were placed in a Department of Transportation (DOT) approved, 55-gallon steel drums, closed and appropriately labeled with project-specific information and initial accumulation date. A total of six soil drums of investigation derived waste (IDW) were generated during the investigation is staged at the site, pending waste characterization and disposal.

## **2.3 Groundwater Sampling**

On December 18, 2019, Terracon personnel measured groundwater levels in MW-1 through MW-5. At that time, groundwater was measured at 19.5 feet bgs in MW-1, at 10.78 feet bgs in MW-2, at 7.67 feet bgs in MW-3, 4.68 feet bgs in MW-4, and at 5.25 feet bgs in MW-5.

Prior to sampling, each well was developed by surging and removing groundwater using a new, a submersible purge pump which was cleaned prior to use on-site and also in between each well. The well development continued until the purge water was relatively free of fine-grained sediments, or the formation failed to recharge (i.e., the well ran dry). Each well was allowed recharge prior to sample collection. The groundwater samples were collected in laboratory prepared containers, placed in a cooler with ice, and transported along with chain-of-custody documentation to Pace in Mount Juliet, Tennessee.

## **2.4 Soil Gas Sampling**

The temporary soil gas monitoring points were sampled on December 12, 2019. Prior to sample collection, leak detection of the sampling train at each sample point was conducted to ensure that representative soil gas samples were being collected. A plastic sampling shroud was utilized that

encompassed the entire sampling train, including the Summa™ canister, flow valve, sampling point and all connections. Sample tubing was connected to the sampling point using a two-way stainless-steel ball valve to isolate the sampling train from the Summa™ canister, and then routed to the exterior of the shroud to allow for leak testing. Leak detection was conducted by introducing helium tracer gas into the sampling shroud through a separate port prior to sampling and then using a portable helium gas detector to monitor for potential leaks in the sampling train. A PID then was utilized to purge the isolated sample train tubing and to monitor the vapor sampling point for VOC concentrations. After approximately two minutes, a helium gas detector was connected to the sample train to monitor the sample train for helium concentrations. If helium was detected above 5% of the initial concentration measured within the shroud, then a leak within the sampling train would be indicated. Based on the results of the leak detection testing, the soil vapor sampling points did not exhibit evidence of leaks.

Subsequently, a soil gas sample was collected from each location using a laboratory-supplied one-liter Summa™ canister that was batch-certified as free of VOCs by the analytical laboratory. The canisters were connected to the sampling points using dedicated Teflon® sample tubing and were equipped with laboratory-supplied flow regulators allowing for sample collection at a low-flow rate (i.e., <200 ml/min). The initial vacuum pressure and canister number were recorded prior to commencing sample collection. Following sample collection, final canister vacuum pressures and sampling information including location, date, and time were recorded. The sample cooler with completed chain-of-custody forms were transported, by FedEx, to Pace in Mount Juliet, Tennessee. Subsequent to sample collection, the Teflon® tubing was removed and the monitoring points were capped with soil.

### **3.0 LABORATORY ANALYTICAL PROGRAM**

The soil samples were analyzed for VOCs using EPA Method SW-846 #8260, total petroleum hydrocarbons (TPH) using Texas Method 1005, and RCRA Metals using EPA SW-846 Method SW6020A/Method SW7470A/7471B. Polycyclic aromatic hydrocarbon (PAH) using EPA Method SW-846 #8270 analysis was performed on the sample exhibiting highest TPH detections in the C12-C-28 carbon chain range. The soil gas samples were analyzed for VOCs using EPA Method TO-15.

The laboratory analytical results for the soil, groundwater, and soil gas samples are summarized in Tables 1 through 3 in Appendix C. The executed chain-of-custody forms, laboratory data reports, and a data usability summary (DUS) are provided in Appendix D.

## 4.0 DATA EVALUATION

### 4.1 Field Evidence

Field screening indicated that no significant PID readings were observed during the installation of MW-1 through MW-5 or during the sampling of SV-1 through SV-5.

### 4.2 Soil Results

The soil sample analytical results are summarized in Table 1 in Appendix C.

#### TPH Analysis

The TPH analysis of the soil samples collected at the site indicated that TPH constituents were not detected above the sample detection limits (SDLs) in the soil samples collected from MW-1 through MW-5.

#### VOC Analysis

The soil sample VOC analyses identified "J"-flagged concentrations of numerous constituents in the samples collected from the monitoring wells. The detected VOC constituents include n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Isopropylbenzene, 2-Butanone, MTBE, n-Propylbenzene, 1,1,2-Trichlorotrifluoroethane, Toluene, and Trichloroethene. Please note that an analytical result "J"-flagged by the laboratory indicates that the observed concentrations represent an estimated concentration which is above the SDL, but below the reporting limit (RL/also known as the method quantitation limit-MQL) of the analytical method.

#### Metals Analysis

The analysis for metals of the MW-1 through MW-5 soil samples indicated that metal concentrations at the site ranged from less than the SDLs to "J"-flagged and low concentrations of the metals constituents with the exception of an elevated Arsenic concentration of 6.03 mg/Kg in the MW-4 (4'-5') soil sample and elevated Lead concentrations of 17.6 mg/Kg observed in the MW-4 (4'-5') soil sample and of 49.5 mg/Kg observed in the MW-5 (4'-5') soil sample.

Due to the elevated Arsenic and Lead concentrations observed, the MW-4 (4'-5') sample and MW-5 (4'-5') samples were selected to be analyzed by synthetic precipitation leaching procedure (SPLP). The SPLP Arsenic analysis for the MW-4 (4'-5') sample did not detect Arsenic above the SDL. The SPLP Lead analysis for the MW-5 (4'-5') sample resulted in a Lead concentration of 0.125 mg/L.

#### Soil Assessment Criteria

In order to determine applicable assessment levels for COC concentrations in soil, Terracon compared the detected concentrations to the applicable Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) residential assessment levels (RALs). The

RAL is defined as the lowest of the established Tier 1 Residential Soil PCL pathways (i.e.,  $TotSoil_{Comb}$ ,  $GWSoil_{Inh}$ ,  $AirSoil_{Inh-V}$ ,  $AirGW-Soil_{Inh-V}$ ) or the Texas Specific Background Concentration for metals. As seen on Table 1, the detected concentration of Arsenic in the MW-4 (4'-5') soil sample and Lead concentrations observed in the MW-4 (4'-5') and MW-5 (4'-5') soil samples exceeded their applicable RALs.

Due to the RAL exceedance, SPLP analysis for Arsenic was conducted on the MW-4 (4'-5') soil sample and Lead was conducted on the MW-5 (4'-5'). The SPLP results indicated that the Arsenic concentration observed in the MW-4 (4'-5') sample was protective of groundwater and that the concentrations of Lead observed at the site are not protective of groundwater.

#### **4.3 Groundwater Results**

The groundwater sample analytical results are summarized on the attached Table 2.

##### **TPH Analysis**

The TPH analyses of the groundwater samples collected from MW-1, MW-2, MW-3, and MW-5 indicated that TPH constituents were not detected above the SDLs. TPH constituent concentrations of 5.39 mg/L in the C6-C12 carbon chain range and of 0.665 "J" in the C12-C28 carbon chain range were detected in the MW-4 groundwater sample. Due to the TPH detections, the MW-4 groundwater sample were further analyzed for PAHs.

##### **PAH Analysis**

The PAH analysis of the MW-4 groundwater sample identified "J" flagged to low concentrations of Anthracene, Benzo(b)fluoranthene, Dibenzofuran, Naphthalene, and Phenanthrene.

##### **VOC Analysis**

Several VOC constituents were detected the MW-1 through MW-4 groundwater samples. Observed VOC concentrations ranged from less than SDLs to "J"-flagged and low concentrations with the exception of a Trichloroethene concentration of 0.0453 in the MW-2 groundwater sample and concentrations of 0.00533 mg/L Benzene, 0.423 mg/L Chlorobenzene, 8.66 mg/L 1,2-Dichlorobenzene, and 1.05 mg/L 1,4-Dichlorobenzene detected in the MW-4 groundwater sample. No VOCs were detected in the MW-5 groundwater sample.

##### **Metals Analysis**

The analysis for metals in groundwater indicated metal concentrations at the site ranging from less than the SDLs to "J"-flagged and low concentrations of the metal constituents.

##### **Groundwater Assessment Criteria**

Terracon compared the detected concentrations of VOCs in groundwater to the applicable TCEQ TRRP Tier I PCLs. The RAL for groundwater is defined as the lower of the applicable groundwater PCL pathways (i.e.,  $GW_{Inh}$  and  $AirGW_{Inh-V}$ ). As seen in Table 2, the detected concentrations of Trichloroethene in the MW-2 groundwater sample and Benzene, Chlorobenzene, 1,2-

Dichlorobenzene, and 1,4-Dichlorobenzene detected in the MW-4 groundwater sample exceeded their applicable RALs. None of the other detected COCs exceeded their applicable RALs.

#### **4.4 TCEQ TRRP Determination Memorandum**

The TCEQ has established guidance for determining which releases are subject to TRRP (see TCEQ memorandum *Determining Which Releases are Subject to TRRP*, dated 11/19/10). Based upon the results of a site investigation, three possible scenarios may result and are described as follows:

- Scenario 1-COC concentrations are below background or the method quantitation limits (MQLs). (Site not subject to TRRP);
- Scenario 2-COC concentrations are above background or the MQLs, but are below RALs. (Site not subject to TRRP);
- Scenario 3-COC concentrations are above RALs. (site subject to TRRP).

Scenario 3 would be applicable at the site, based on the concentration of Arsenic and Lead in the shallow soils and VOCs in the groundwater exceeding their applicable RALs. As indicated by the memorandum, the site is subject to the requirements of TRRP.

#### **4.5 Soil Gas Results**

The soil vapor sampling results are summarized in Table 3 (see Appendix C). As seen, laboratory results indicated that the soil gas samples exhibited varying concentrations of several VOCs, including petroleum hydrocarbon constituents (Benzene, Toluene, Ethylbenzene, Xylenes) and the chlorinated hydrocarbon constituents (Tetrachloroethene, Trichloroethene, and Vinyl Chloride).

The State of Texas, through the TCEQ, does not currently regulate vapor intrusion (VI). However, they do evaluate sites with potential vapor intrusion issues on a case by case basis. The target indoor air concentrations which the TCEQ uses in these evaluations are the TRRP, risk-based exposure levels (RBELs) for air (<sup>air</sup>RBEL<sub>Inh</sub>). The RBELs have not been specifically developed for indoor air but are derived to be health protective of the inhalation route of exposure and use a less conservative carcinogenic risk level of  $1 \times 10^{-5}$ . Both residential and commercial land use RBELs have been developed. A target soil gas value (SGV) can readily be calculated from the air RBELs using the EPA recommended soil gas attenuation factor of 0.03 for extrapolation from soil gas to indoor air. Terracon calculated the SGVs, and these are listed on the attached Table 3. A comparison of the site soil gas data to the SGVs indicates that none of the concentrations exceeded their calculated SGVs. Based on the results of the soil gas samples, there does not appear to be a significant potential for vapor intrusion at the site at this time.

### **5.0 FINDINGS AND RECOMMENDATIONS**

The findings and recommendations of this investigation are presented as follows:

**Limited Subsurface Investigation Report**

6909 Ryan Drive Property ■ Austin, Travis County, Texas  
January 22, 2020 ■ Terracon Project No. 96197913



- Five soil borings/groundwater monitoring wells (MW-1 through MW-5) and five temporary soil vapor monitoring points (SV-1 through SV-5) were installed at the site;
- Field screening indicated that no significant PID readings were observed during the installation of MW-1 through MW-5 or during the sampling of SV-1 through SV-5;
- On December 18, 2019, Terracon personnel measured groundwater levels in MW-1 through MW-5. At that time, groundwater was measured at 19.5 feet bgs in MW-1, at 10.78 feet bgs in MW-2, at 7.67 feet bgs in MW-3, 4.68 feet bgs in MW-4, and at 5.25 feet bgs in MW-5;
- The soil sample analytical results are summarized in Table 1 (see Appendix C). The TPH analysis of the soil samples collected at the site indicated that TPH constituents were not detected above the SDLs in the soil samples collected from MW-1 through MW-5. The soil sample VOC analysis identified "J"-flagged concentrations of numerous constituents in the soil samples collected from the monitoring wells. The detected VOC constituents include n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Isopropylbenzene, 2-Butanone, MTBE, n-Propylbenzene, 1,1,2-Trichlorotrifluoroethane, Toluene, and Trichloroethene. The analysis for metals of the MW-1 through MW-5 soil samples indicated that metal concentrations at the site ranged from less than the SDLs to "J"-flagged and low concentrations with the metals constituents with the exception of an elevated Arsenic concentration in the MW-4 (4'-5') soil sample and elevated Lead concentrations observed in the MW-4 (4'-5') and in the MW-5 (4'-5') soil samples.

Due to the elevated Arsenic and Lead concentrations observed, SPLP analysis for Arsenic was performed on the MW-4 (4'-5') sample and SPLP for Lead was performed on the MW-5 (4'-5') sample. The SPLP results indicated that the Arsenic concentration observed in the MW-4 (4'-5') sample was protective of groundwater. The SPLP analysis for Lead in the MW-5 (4'-5') indicated that the Lead concentration observed was capable of leaching from the soil matrix and impacting groundwater;

- The groundwater sample analytical results are summarized in Table 2 (see Appendix C). The TPH analyses of the groundwater samples collected from MW-1, MW-2, MW-3, and MW-5 indicated that TPH constituents were not detected above the SDLs. TPH was detected in the C6-C12 carbon chain range and in the C12-C28 carbon chain range in the MW-4 groundwater sample. The MW-4 groundwater sample was further analyzed for PAHs which identified "J" flagged to low concentrations of Anthracene, Benzo(b)fluoranthene, Dibenzofuran, Naphthalene, and Phenanthrene. Several VOC constituents were detected in the MW-1 through MW-5 groundwater samples. Observed VOC concentrations of Trichloroethene in the MW-2 groundwater sample and of Benzene, Chlorobenzene, 1,2-Dichlorobenzene, and 1,4-Dichlorobenzene in the MW-4 groundwater sample exceeded their applicable RALs. The analysis for metals in groundwater indicated metal concentrations at the site ranging from less

than the SDLs to "J"-flagged and low concentrations of the metal constituents. The detected concentration of Trichloroethene in the MW-2 groundwater sample and Benzene, Chlorobenzene, 1,2-Dichlorobenzene, and 1,4-Dichlorobenzene exceeded their applicable RALs. None of the other detected COCs exceeded their applicable RALs;

- The soil vapor sample analytical results are summarized on the attached Table 3. Laboratory results indicated that the soil gas samples exhibited varying concentrations of several VOCs, including petroleum hydrocarbon constituents (Benzene, Toluene, Ethylbenzene, and Xylenes) and chlorinated hydrocarbon constituents (Tetrachloroethene, Trichloroethene, and Vinyl Chloride). A comparison of the site soil gas data to the SGVs indicates that none of the concentrations exceeded their calculated SGVs. Based on the results of the soil gas samples, there does not appear to be a significant potential for vapor intrusion at the site at this time;
- Six drums containing soil cuttings were generated during the installation and sampling of MW-1 through MW-5. Laboratory analysis indicated that the soils are affected and will need to be characterized and approved for disposal prior to being transported off-site for disposal;

Based upon the presence of soil Arsenic and Lead at concentrations above the RALs and concentrations of Trichloroethene in the MW-2 groundwater sample and of Benzene, Chlorobenzene, 1,2-Dichlorobenzene, and 1,4-Dichlorobenzene in the MW-4 groundwater sample exceeding their applicable RALs, it appears that a reportable release occurred at the site, affecting the soil and groundwater. Based on location of the RAL exceedances observed in groundwater, the source of the impact appears to be located off-site and additional assessment would be required to further evaluate the possible source of the elevated COCs in groundwater. The source of the elevated Arsenic and Lead concentrations in the shallow soil may be associated with railroad activities from the adjacent rail line. Further assessment would be needed to delineate the extent of the shallow soil impacts.

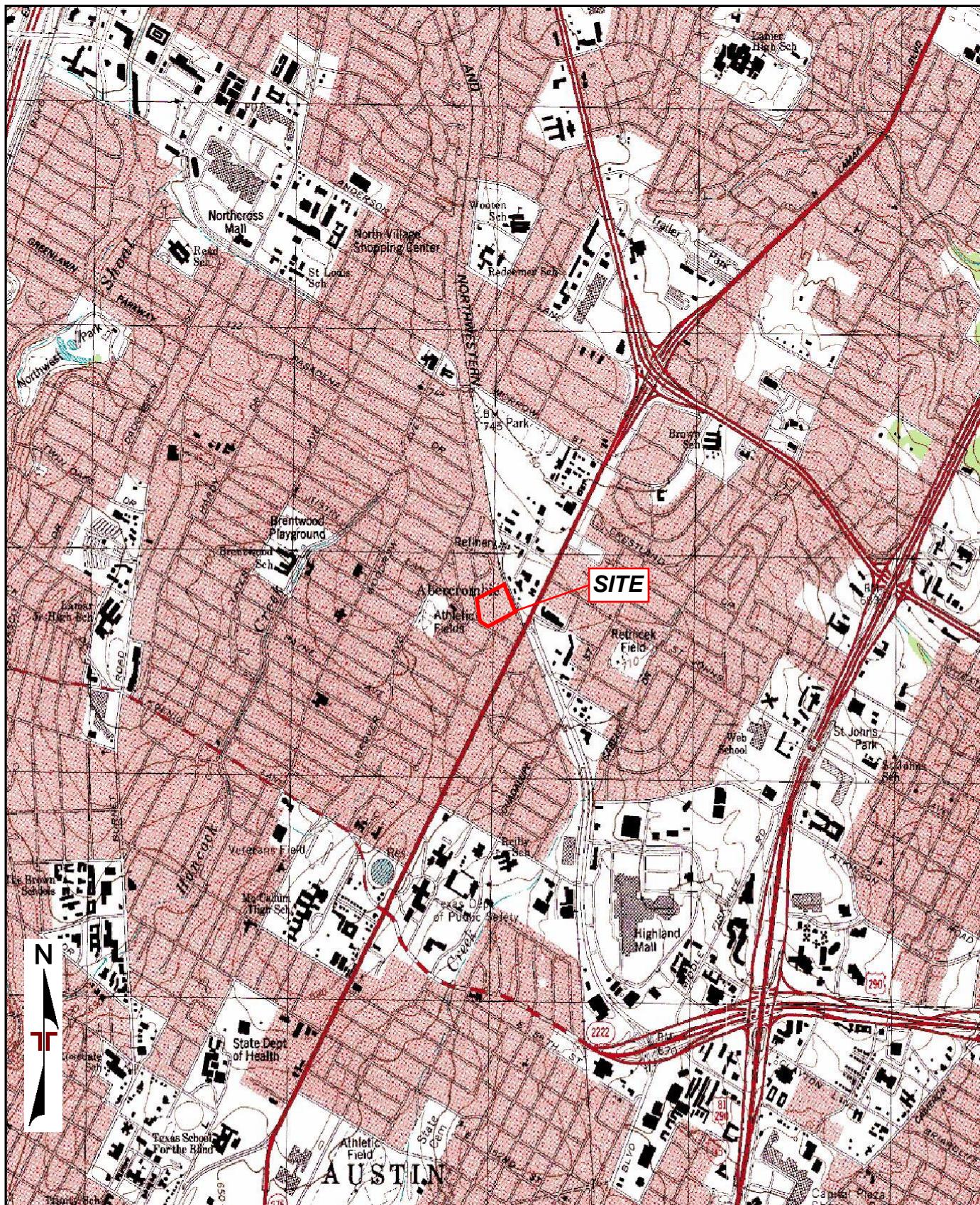
Based on the investigation results, Terracon recommends the following:

- That the monitoring wells be surveyed to a common datum and additional groundwater measurements be collected in order to determine the direction of groundwater flow at the site;
- The City of Austin consult an environmental attorney to discuss regulatory reporting and liability regarding the impacts to the property;
- Collection of additional soil samples for the evaluation of the horizontal and vertical extents of the elevated Arsenic and Lead concentrations as well as for waste characterization purposes.



## Appendix A

### Exhibits



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY  
QUADRANGLES INCLUDE: AUSTIN EAST, TX (1/1/1988).

Project Manager: Drawn by: Checked by: Approved by:	Project No. 96197913 Scale: 1"=2,000' File Name: 96197913.exh Date: 1/08/2020	<b>Terracon</b> 5307 Industrial Oaks Blvd, Ste 160 Austin, TX 78735-8821	TOPOGRAPHIC MAP <b>6909 RYAN DRIVE PROPERTY</b> 6909 Ryan Drive Austin, Travis County, Texas	Exhibit 1
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DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS  
NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED  
BY MICROSOFT BING MAPS

Project Manager:	JBM	Project No.:	96197913
Drawn by:	JBM	Scale:	AS SHOWN
Checked by:	RCF	File Name:	96197913.ex
Approved by:	RCF	Date:	1/08/2020

**Terracon**  
5307 Industrial Oaks Blvd, Ste 160  
Austin, TX 78735-8821

**SITE DIAGRAM**  
**6909 RYAN DRIVE PROPERTY**  
6909 Ryan Drive  
Austin, Travis County, Texas

Exhibit  
2



## Appendix B

### Boring Logs

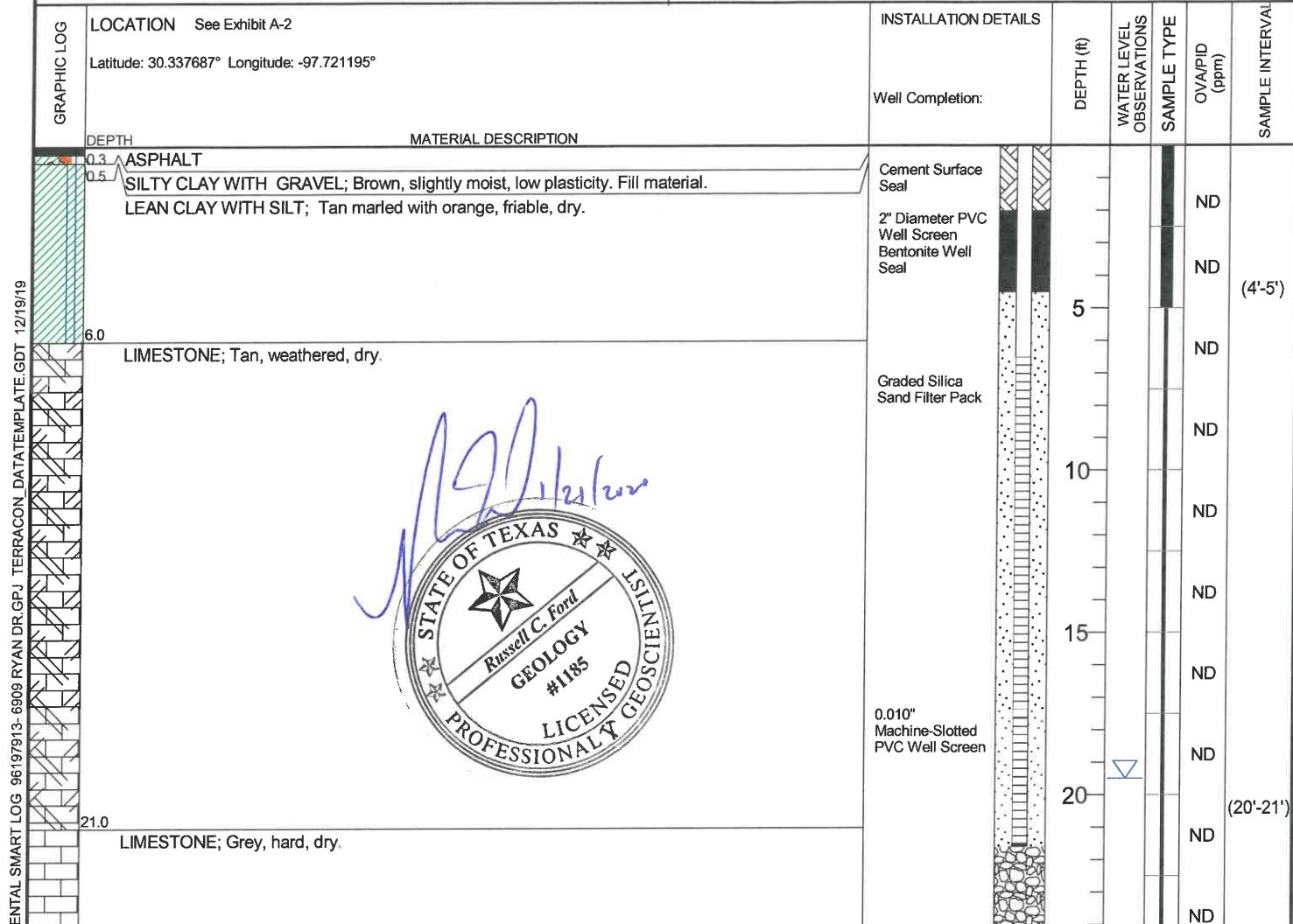
# WELL LOG NO. MW-1

Page 1 of 1

**PROJECT: 6909 Ryan Dr**

**CLIENT: City of Austin Real Estate Services  
Austin, TX**

**SITE: 6909 Ryan Dr  
Austin, TX**



The stratification lines represent the approximate transition between differing soil types and/or rock types;  
in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT/SFA		Notes: Well completed with a flush mounted concrete pad with 8" circular bolt-down monitoring well cover and locking well cap.	
Abandonment Method:			
<b>WATER LEVEL OBSERVATIONS</b>		Well Started: 12-12-2019	Well Completed: 12-12-2019
Water gauged at 19.5' on 12/18/19		Drill Rig: Geoprobe	Driller: Sunbelt
		Project No.: 96197913	Exhibit: A-1

# WELL LOG NO. MW-2

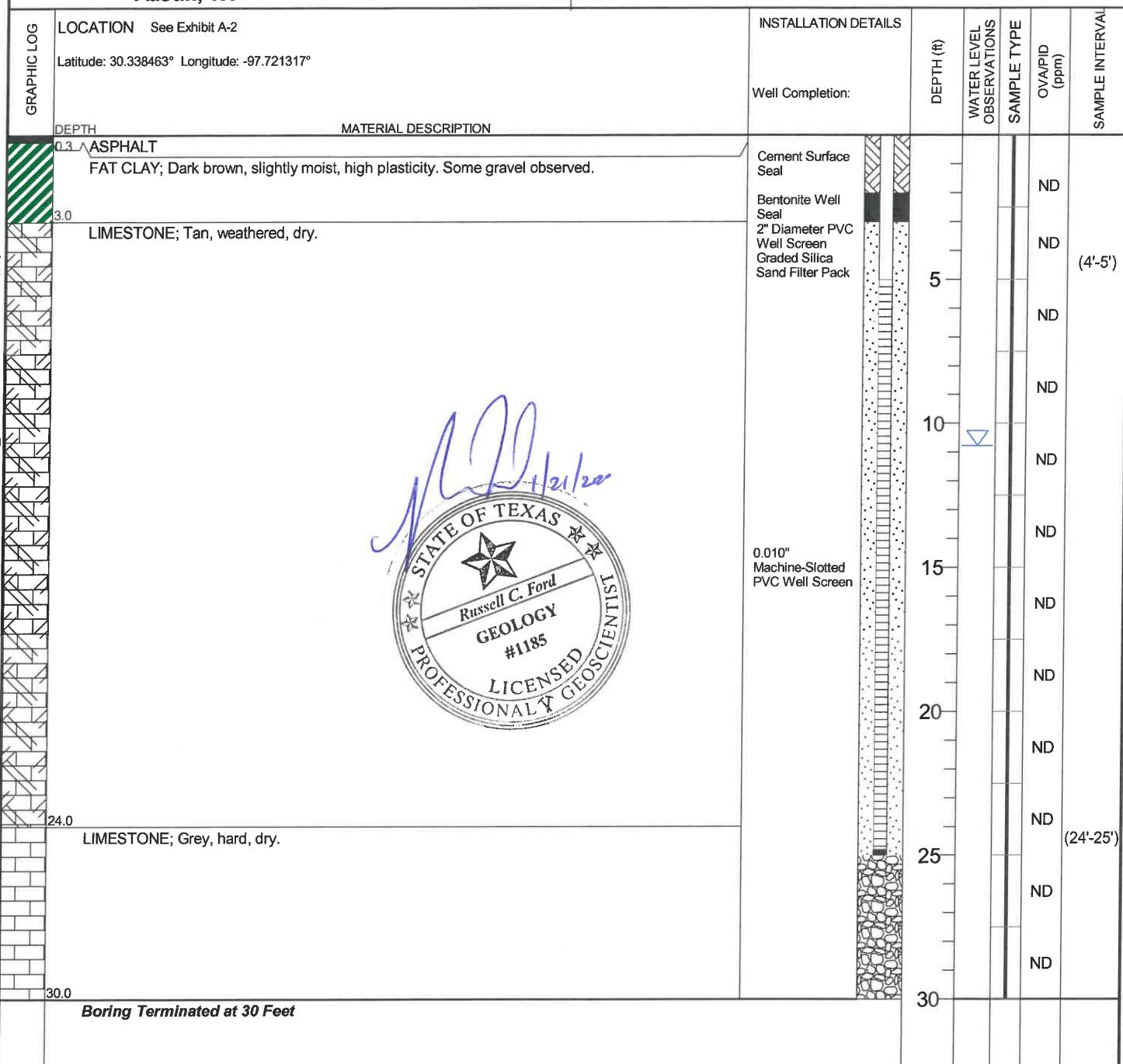
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**PROJECT: 6909 Ryan Dr**

**CLIENT: City of Austin Real Estate Services  
Austin, TX**

**SITE: 6909 Ryan Dr  
Austin, TX**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 96197913-6909 RYAN DR.GPJ TERRACON DATA TEMPLATE.GDT 12/19/19



The stratification lines represent the approximate transition between differing soil types and/or rock types;  
in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT/SFA

Notes:

Well completed with a flush mounted concrete pad with 8" circular bolt-down monitoring well cover and locking well cap.

Abandonment Method:

## WATER LEVEL OBSERVATIONS

Water gauged at 10.78' on 12/18/19

**Terracon**  
5307 Industrial Oaks Blvd, Ste 160  
Austin, TX

Well Started: 12-12-2019

Well Completed: 12-12-2019

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 96197913

Exhibit: A-2

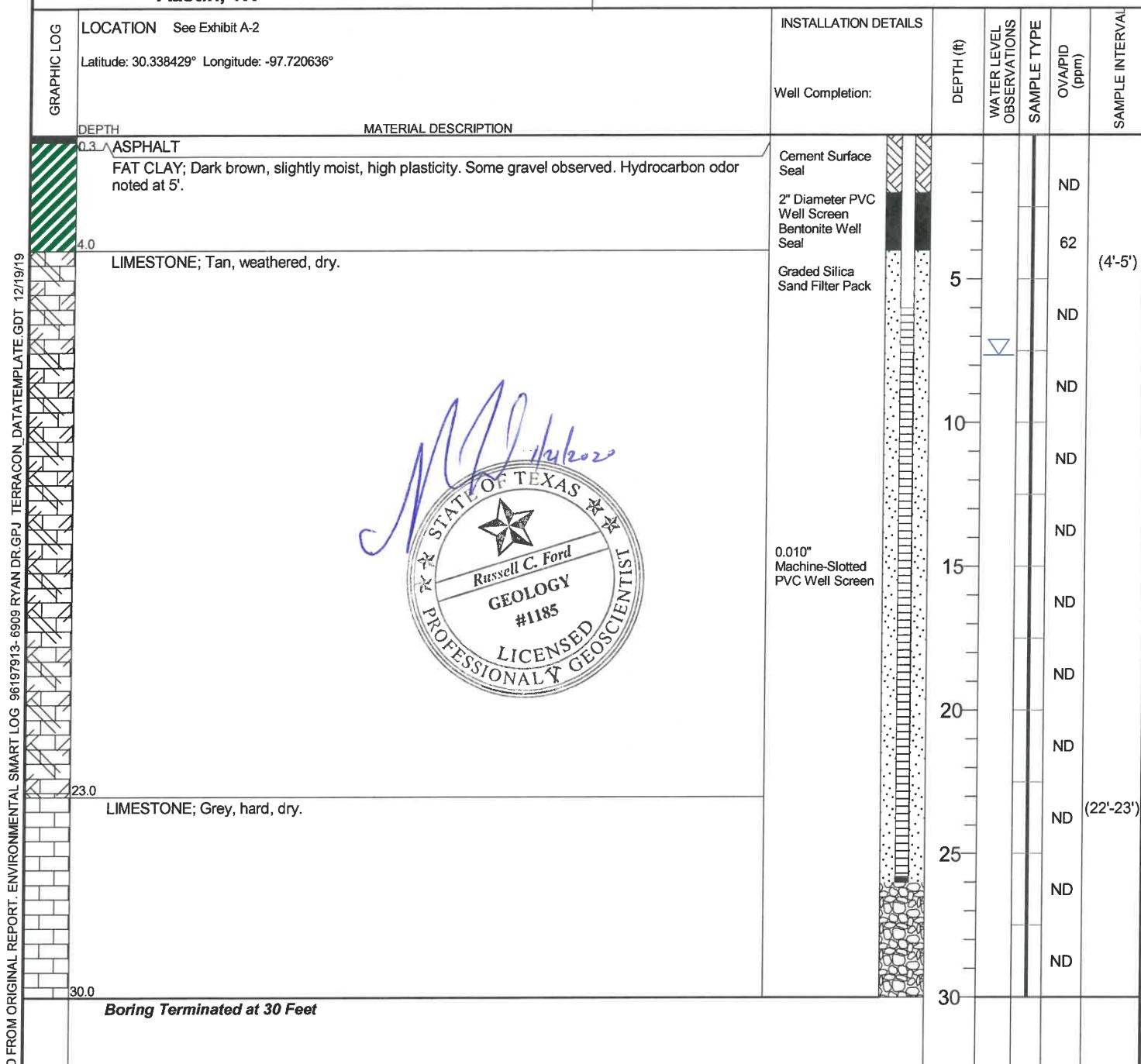
## **WELL LOG NO. MW-3**

Page 1 of 1

## **PROJECT: 6909 Ryan Dr**

**CLIENT: City of Austin Real Estate Services  
Austin, TX**

**SITE:** 6909 Ryan Dr  
Austin, TX



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT/SFA

**Notes:**

Well completed with a flush mounted concrete pad with 8" circular bolt-down monitoring well cover and locking well cap.

#### Abandonment Method:

## **WATER LEVEL OBSERVATIONS**

 Water gauged at 7.67' on 12/18/19

Terracon  
5307 Industrial Oaks Blvd, Ste 160

5307 Industrial Oaks Blvd, Ste 160  
Austin, TX

Well Started: 12-12-2019

Well Completed: 12-12-2019

#### Drill Rig: Geoprobe

Driller: Sunbelt

Project No : 06103013

Exhibit A-3

## **WELL LOG NO. MW-4**

Page 1 of 1

**PROJECT: 6909 Ryan Dr**

## **CLIENT: City of Austin Real Estate Services Austin, TX**

**SITE:** 6909 Ryan Dr  
Austin, TX

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT/SFA

**Notes:**

Well completed with a flush mounted concrete pad with 8" circular bolt-down monitoring well cover and locking well cap.

#### Abandonment Method:

## **WATER LEVEL OBSERVATIONS**

 Water gauged at 4.68' on 12/18/19



5307 Industrial Oaks Blvd, Ste 160  
Austin, TX

Well Started: 12-12-2019

Well Completed: 12-12-2019

### Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 96197913

Exhibit: A-4

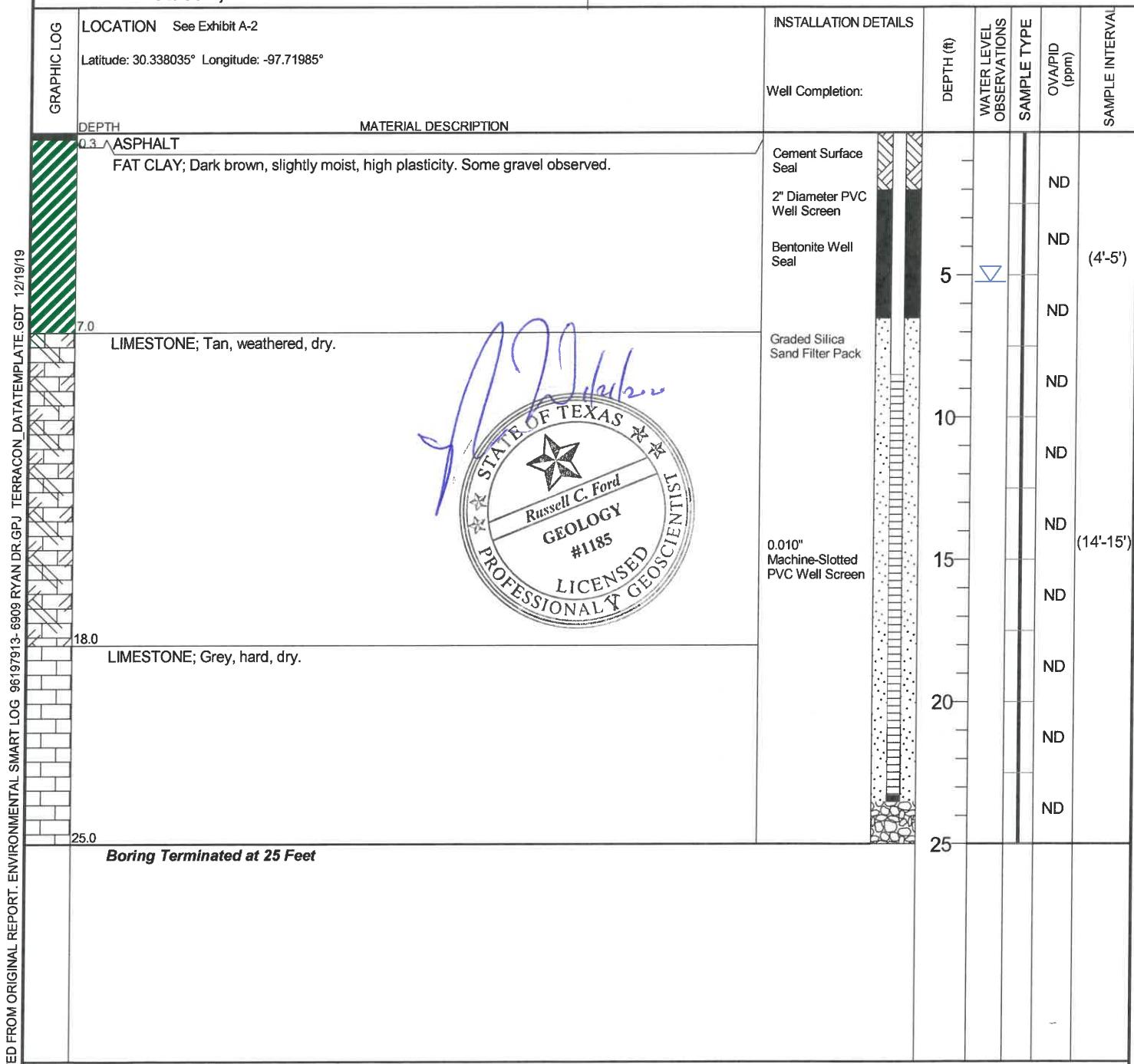
# **WELL LOG NO. MW-5**

Page 1 of 1

**PROJECT: 6909 Ryan Dr**

**CLIENT: City of Austin Real Estate Services  
Austin, TX**

**SITE:** 6909 Ryan Dr  
Austin, TX



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

**Advancement Method:  
DPT/SFA**

**Notes:**

Well completed with a flush mounted concrete pad with 8" circular bolt-down monitoring well cover and locking well cap.

#### Abandonment Method:

## **WATER LEVEL OBSERVATIONS**

 Water gauged at 5.25' on 12/18/19



5307 Industrial Oaks Blvd, Ste 160  
Austin, TX

Well Started: 13.12.2019

Well Completed: 13.12.2019

#### Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 06103012

Exhibit A E



## Appendix C

### Analytical Data Summary Tables

**TABLE 1**  
**Soil Analytical Results**  
**Austin Energy Property**  
**6909 Ryan Drive**  
**Austin, Travis County, Texas**

Sample ID (date collected)	TPH (mg/Kg)		VOCs (mg/Kg)		RCRA Metals (mg/Kg)							SPLP (mg/L)			
					Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Arsenic	Lead	
<b>MW-1 (4'-5')</b> (12/12/2019)	C6-C12 <17.1	<17.1	2-Butanone (MEK)	0.019	J	2.47	21.4	0.259 J	7.77	3.95	<0.00320	<2.17	<1.77	NA	NA
	>C12-C28 <17.1		Toluene	0.00195	J										
	>C28-C35 <17.1		1,2,4-Trimethylbenzene	0.00338	J										
<b>MW-1 (20'-21')</b> (12/12/2019)	C6-C12 <16.8	<16.8	2-Butanone (MEK)	0.0179	J	1.42	13.7	0.0989 J	5.88	2.55	<0.00313	<0.212	<0.173	NA	NA
	>C12-C28 <16.8		Tetrachloroethene	0.00118	J										
	>C28-C35 <16.8		Toluene	0.00235	J										
			1,2,4-Trimethylbenzene	0.00151	J										
<b>MW-2 (4'-5')</b> (12/12/2019)	C6-C12 <16.9	<16.9	2-Butanone (MEK)	0.0173	J	1.7	12.9	0.128 J	6.53	2.33	<0.00316	<0.215	<0.175	NA	NA
	>C12-C28 <16.9		Toluene	0.0029	J										
	>C28-C35 <16.9														
<b>MW-2 (24'-25')</b> (12/12/2019)	C6-C12 <16.6	<16.6	2-Butanone (MEK)	0.025	J	1.96	13.1	0.147 J	5.62	1.86	<0.00310	0.261 J	<0.172	NA	NA
	>C12-C28 <16.6		Toluene	0.00271	J										
	>C28-C35 <16.6		Trichloroethene	0.000872	J										
<b>MW-3 (5'-6')</b> (12/12/2019)	C6-C12 <17.7	<17.7	Acetone	0.271	J	3.98	22.0	0.175 J	7.58	9.02	<0.00330	<0.224	<0.183	NA	NA
	>C12-C28 <17.7		n-Butylbenzene	0.0814											
	>C28-C35 <17.7		sec-Butylbenzene	0.0319											
			tert-Butylbenzene	0.00467	J										
			Isopropylbenzene	0.0184											
			2-Butanone (MEK)	0.137											
			Methyl tert-butyl ether	0.000578	J										
			n-Propylbenzene	0.0706											
			Toluene	0.00236	J										
<b>MW-3 (22'-23')</b> (12/12/2019)	C6-C12 <18.3	<18.3	n-Butylbenzene	0.00485	J	1.64	25.1	<0.0975	5.48	1.61	<0.00341	0.520 J	<0.189	NA	NA
	>C12-C28 <18.3		Isopropylbenzene	0.00257	J										
	>C28-C35 <18.3		n-Propylbenzene	0.00537	J										
			Toluene	0.00178	J										
<b>TCEQ TRRP Residential Assessment Levels</b>	<i>For Screening Only</i>		Acetone	43.0		Arsenic		Barium		Cadmium		Chromium		Lead	
			n-Butylbenzene	150.0		5.9		440.0		1.5		2400.0		15.0	
			sec-Butylbenzene	85.0											
			tert-Butylbenzene	100.0											
			Chlorobenzene	1.1											
			1,2-Dichlorobenzene	18.0											
			1,3-Dichlorobenzene	6.7											
			1,4-Dichlorobenzene	2.1											
			Isopropylbenzene	350.0											
			2-Butanone (MEK)	29.0											
			MTBE	0.62											
			n-Propylbenzene	45.0											
			1,1,2-Trichlorotrifluoroethane	74000.0											
			Toluene	8.2											
			Trichloroethene	0.034											

**Notes:**

mg/Kg - milligrams per kilogram

mg/L - milligrams per Liter

J - Analyte detected above the sample detection limit (SDL) but below the method quantitation limit (reporting limit - RL).

**Bold** values indicate an exceedance of one or more target levels

**TABLE 1**  
**Soil Analytical Results**  
**Austin Energy Property**  
**6909 Ryan Drive**  
**Austin, Travis County, Texas**

Sample ID (date collected)	TPH (mg/Kg)		VOCs (mg/Kg)		RCRA Metals (mg/Kg)								SPLP (mg/L)	
	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Arsenic	Lead				
<b>MW- 4 (4'-5')</b> (12/12/2019)	C6-C12 <20.6 >C12-C28 <20.6 >C28-C35 <20.6	Chlorobenzene Toluene	0.00216 0.00308	J J	<b>6.03</b>	183.0	0.403 J	30.3	<b>17.6</b>	<0.00385	0.447 J	<0.213	<0.0065	NA
<b>MW- 4 (18'-19')</b> (12/12/2019)	C6-C12 <17.0 >C12-C28 <17.0 >C28-C35 <17.0	Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Butanone (MEK) 1,1,2-Trichlorotrifluoroethane Toluene	0.0027 0.12 0.00292 0.0119 0.0173 0.0012 0.00186	J J J J J J	2.24	20.7	0.143 J	6.67	3.22	<0.00318	<0.216	<0.176	NA	NA
<b>MW- 5 (4'-5')</b> (12/12/2019)	C6-C12 <18.8 >C12-C28 <18.8 >C28-C35 <18.8	1,2-Dichlorobenzene 2-Butanone (MEK) Toluene	0.00475 0.0254 0.00169	J J J	4.42	137.0	0.441 J	23.7	<b>49.5</b>	<0.00351	0.272 J	<0.195	NA	<b>0.125</b>
<b>MW- 5 (14'-15')</b> (12/12/2019)	C6-C12 <16.9 >C12-C28 <16.9 >C28-C35 <16.9	2-Butanone (MEK) Toluene	0.0145 0.00384	J J	4.32	21.5	0.131 J	5.77	2.82	<0.00316	<0.215	<0.175	NA	NA
TCEQ TRRP Residential Assessment Levels	For Screening Only	Acetone <i>n</i> -Butylbenzene <i>sec</i> -Butylbenzene <i>tert</i> -Butylbenzene Chlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene <i>Isopropyl</i> benzene 2-Butanone (MEK) MTBE <i>n</i> -Propylbenzene 1,1,2-Trichlorotrifluoroethane Toluene Trichloroethene	43.0 150.0 85.0 100.0 1.1 18.0 6.7 2.1 350.0 29.0 0.62 45.0 74000.0 8.2 0.034	Arsenic 5.9	Barium 440	Cadmium 1.5	Chromium 2400	Lead 15.0	Mercury 0.04	Selenium 2.3	Silver 0.48	Arsenic 0.1	Lead 0.015	

**Notes:**

mg/Kg - milligrams per kilogram

mg/L - milligrams per Liter

J - Analyte detected above the sample detection limit (SDL) but below the method quantitation limit (reporting limit - RL).

**Bold** values indicate an exceedance of one or more target levels

**TABLE 2**  
**Groundwater Analytical Results**  
**Austin Energy Property**  
**6909 Ryan Drive**  
**Austin, Travis County, Texas**

Sample ID (date collected)	TPH (mg/L)	PAH (mg/L)	VOCs (mg/L)	RCRA Metals (mg/Kg)								
				Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	
<b>MW-1</b> (12/17/2019)	C6-C12 <0.600 >C12-C28 <0.600 >C28-C35 <0.600	Not Detected	Toluene 0.000448 J	0.00292	0.135	<0.00016	0.00422	0.00463	<0.0000490	0.00175 J	<0.00031	
<b>MW-2</b> (12/17/2019)	C6-C12 <0.600 >C12-C28 <0.600 >C28-C35 <0.600	Not Detected	cis-1,2-Dichloroethene 0.000877 J 1,1,2-Trichlorotrifluoroethane 0.0198 Trichloroethene 0.0453 Trichlorofluoromethane 0.00728	0.000795 J	0.0711	<0.00016	0.00138 J	<0.00024	<0.0000490	0.00211	<0.00031	
<b>MW-3</b> (12/17/2019)	C6-C12 <0.600 >C12-C28 <0.600 >C28-C35 <0.600	Not Detected	Benzene 0.000862 J Methyl tert-butyl ether 0.0226 Naphthalene 0.0223 Trichloroethene 0.000771 J	0.00168 J	0.0643	<0.00016	<0.00054	<0.00024	<0.0000490	0.00247	<0.00031	
<b>MW-4</b> (12/17/2019)	C6-C12 5.39 >C12-C28 0.665 >C28-C35 <0.600	J	Anthracene 0.0000173 J Benzo(b)fluoranthene 0.00000231 J Dibenzofuran 0.0000906 Naphthalene 0.000452 Phenanthrene 0.000011 J	Benzene 0.00533 Chlorobenzene 0.423 1,2-Dichlorobenzene 8.66 1,3-Dichlorobenzene 0.215 1,4-Dichlorobenzene 1.05 1,2-Dichloroethane 0.0043 cis-1,2-Dichloroethene 0.00466 trans-1,2-Dichloroethene 0.00058 J Ethylbenzene 0.000446 J Naphthalene 0.00412 J Toluene 0.000464 J 1,2,4-Trichlorobenzene 0.00071 J Vinyl chloride 0.00142	0.00112 J	0.126	<0.00016	<0.00054	0.000265 J	<0.0000490	0.000529 J	<0.00031
<b>MW-5</b> (12/17/2019)	C6-C12 <0.600 >C12-C28 <0.600 >C28-C35 <0.600	Not Detected	1,2-Dichlorobenzene 0.00127 Naphthalene 0.00198 J 1,2,4-Trichlorobenzene 0.000536 J	0.00363	0.169	<0.00016	0.000585 J	0.000362 J	<0.0000490	0.000402 J	<0.00031	
<i>TCEQ TRRP Residential Action Levels</i>	Screening Only	Anthracene 7.3 Benzo(b)fluoranthene 0.0091 Dibenzofuran 0.98 Naphthalene 0.49 Phenanthrene 0.73	Benzene 0.005 Chlorobenzene 0.1 1,2-Dichlorobenzene 0.6 1,3-Dichlorobenzene 0.73 1,4-Dichlorobenzene 0.075 1,2-Dichloroethane 0.005 cis-1,2-Dichloroethene 0.07 trans-1,2-Dichloroethene 0.1 Ethylbenzene 0.7 MTBE 0.24 Naphthalene 0.49 1,1,2-Trichlorotrifluoroethane 730.0 Toluene 1.0 1,2,4-Trichlorobenzene 0.07 Trichloroethene 0.005 Trichlorofluoromethane 7.3 Vinyl Chloride 0.002	Arsenic 0.01	Barium 2.0	Cadmium 0.005	Chromium 0.1	Lead 0.015	Mercury 0.002	Selenium 0.05	Silver 0.12	

**Notes:**

mg/L - milligrams per Liter

J - Analyte detected above the sample detection limit (SDL) but below the method quantitation limit (reporting limit - RL).

NL - Analyte not listed in applicable table

**TABLE 3**  
**Soil Vapor Analytical Results**  
**Austin Energy Property**  
**6909 Ryan Drive**  
**Austin, Travis County, Texas**

Sample ID:	Analytical Results					TCEQ SGVs (residential)
	SV-1	SV-2	SV-3	SV-4	SV-5	
VOCs	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>	ug/m <sup>3</sup>
Benzene	15.9	18.2	29.9	5.33	5.21	366.0
Ethyl benzene	5.07	9.62	9.8	1.63	2.46	6.7E+04
4-Ethyltoluene	1.69	3.47	1.95	1.26	1.19	1.4E+04
Tetrachloroethene	<1.36	1.58	<1.36	<1.36	<1.36	2.1E+03
Toluene	15.4	26.9	30.2	6.52	8.25	1.4E+05
Trichloroethene	<1.07	<1.07	<1.07	<1.07	<1.07	197.0
1,2,4-Trimethylbenzene	1.78	3.6	2.13	1.35	1.47	243.0
1,3,5-Trimethylbenzene	<0.982	1.36	<0.982	<0.982	<0.982	210.0
2,2,4-Trimethylpentane	1.81	2.42	40.4	1.07	1.87	NL
Vinyl chloride	<0.511	<0.511	0.695	0.593	<0.511	9.7E+04
m&p-Xylene	5.38	10.2	8.41	3.37	3.57	2.1E+04
o-Xylene	1.97	3.73	3.23	1.53	1.4	2.1E+04

**NOTES:**

ug/m<sup>3</sup> - Micrograms per cubic meter

All values derived using a soil gas attenuation factor of 0.03

NL - Analyte not listed in applicable table

**Bold** values indicate an exceedance of one or more target levels

NL - Analyte not listed in applicable table



## Appendix D

### Data Usability Summary and Laboratory Reports

# Data Usability Summary

Terracon reviewed three analytical data packages (L1170985, L1174848, L1170906 and L1172661) from **Pace Analytical National Center for Testing and Innovation** for the analysis of soil, groundwater, and soil gas samples collected on December 14, 2019, at the project site located at 701 and 711 West 6<sup>th</sup> Street in Austin, Travis County, Texas. Data was reviewed for conformance to the requirements of the guidance document, *Review and Reporting of COC Concentration Data* (RG-366/TRRP-13) and adherence to project objectives.

**Intended Use of Data:** To provide data on concentrations of chemicals of concern (COCs) in the on-site soils, groundwater and soil vapor.

Analyses requested included:

- Texas Method 1005 TPH
- EPA SW-846 #8260B VOCs
- EPA SW-846 #1312/6010/6020/7471 Metals
- Method TO-15 VOCs in Air

Data was reviewed and validated as described in *Review and Reporting of COC Concentration Data*, (RG-366/TRRP-13) and the results of the review/validation are discussed in this Data Usability Summary (DUS). The following laboratory submittals and field data were examined:

- the reportable data,
- the laboratory review checklists and associated exception reports, and
- the field notes with respect to field instrument calibrations, sampling procedures, and preservation procedures prior to shipping the samples to the laboratory.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklists (LRCs), Exception Reports (ERs) and in the case narratives, all of which were included in this review.

The LRCs, associated ERs, and reportable data included in this review are attached to this DUS.

## Introduction

Samples of the soil, groundwater, and soil gas were collected at the site during the performance of a subsurface investigation being conducted as due diligence for the sale of the property.

## Project Objectives

Organic Compounds  
Recovery 70-130%  
RPD 30%

## Data Review / Validation Results

### Analytical Results

Qualified sample data are listed in Table B-2. Non-detected results are reported as less than the value of the sample detection limit (SDL).

### Preservation and Holding Times

Samples were evaluated for agreement with the chain-of-custody (C-O-C). All samples were received in the appropriate containers and in good condition with the paperwork filled out properly. Sample receipt temperatures were within the acceptance criteria of  $4 \pm 2$  °C. Samples were preserved in the field as specified in SW-846 Table 2-36. Samples were prepared and analyzed within holding times specified in SW-846 Table 2-36 with the following exception:

- 8270C-SIM WG1402952 L1172661-04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.

### Calibrations

Initial and continuing calibrations were analyzed at the method frequency and were within method control limits with the following exception:

- WG1398704 R3483960-3 and 4: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

### Blanks

The LRC indicated that blank samples were analyzed at the appropriate frequency and were taken through the entire analytical process with the following exception:

- 8260B WG1397839 2-Butanone (MEK) L1170985-01, 02, 03, 04, 05, 08, 09 and 10: Concentration in the Blank >MQL.

### Internal Standard and Surrogate Recoveries (Organics Only)

The LRC indicated the surrogate percent recoveries were within laboratory limits.

### Laboratory Control Samples

The LRC indicated that laboratory control samples were analyzed at the required frequency and were within laboratory control limits with the following exception:

- 8260B WG1400601 1,2-Dibromo-3-Chloropropane, 4-Methyl-2-pentanone (MIBK): Percent Recovery is outside of established control limits.

### Matrix Spike/Matrix Spike Duplicates

The LRC indicated that MS/MSD data were within method limits with the following exceptions:

- 8260B WG1397839 Acetone, 2-Butanone (MEK), 1,2,3-Trichloropropane: Percent Recovery is outside of established control limits;

### **Serial dilutions, Post Digestion Spikes, and Method of Standard Additions**

The LRC indicated that serial dilutions, post digestion spikes, and method of standard additions data were within method limits with the following exception:

- 6020 WG1397922 Arsenic, Barium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

### **Field Precision**

Field duplicate samples were not collected.

### **Summary**

Based on this review, the soil, groundwater, and soil gas analytical data are usable for the purpose of determining current COC concentrations at the affected property.

**Table B-1. Cross-Reference Field Sample Identifications and Laboratory Identifications**

<b>Field Identification</b>	<b>Laboratory Identification</b>
MW-1 (4'-5')	L1170985-01
MW-1 (20'-21')	L1170985-02
MW-2 (4'-5')	L1170985-03
MW-2 (24'-25')	L1171426-04
MW-3 (5'-6')	L1170985-01
MW-3 (22'-23')	L1170985-02
MW-4 (4'-5')	L1170985-01
MW-4 (18'-19')	L11709856-02
MW-5 (4'-5')	L1170985-01
MW-5 (14'-15')	L1170985-02
MW-1	L1172661-01
MW-2	L1172661-02
MW-3	L1172661-03
MW-4	L1172661-04
MW-5	L1172661-05
MW-4 (4'-5')	L1174848-01
MW-5 (4'-5')	L1174848-02
SV-1	L1170906-01
SV-2	L1170906-02
SV-3	L1170906-03
SV-4	L1170906-04
SV-5	L1170906-05

**Table B-2. Qualified Analytical Data**

<b>Field Identification</b>	<b>Analyte</b>	<b>Qualification</b>	<b>Reason for Qualification</b>
MW-1	Toluene Selenium	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-2	cis-1,2-Dichloroethene Arsenic Chromium	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-3	Benzene Trichloroethene Arsenic	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-4	TPH (C12-C29) Anthracene Benzo(b)fluoranthene Phenanthrene Trans-1,2-Dichloroethene Ethylbenzene Naphthalene Toluene 1,2,4-Trichlorobenzene Arsenic Lead Selenium	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-5	Naphthalene 1,2,4-Trichloroethene Chromium Lead	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-3 (11'-12')	TCLP Lead	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-3 (11'-12')	1,2,4-Trimethylbenzene	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
MW-4 (4'-5')	2-Butanone	J	Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements.
UJ – The analyte was analyzed for but was not detected above the reported sample quantitation limit. The associated value is an estimate and may be inaccurate or imprecise. J – Estimated data; the reported quantitation limit or sample concentration is approximated due to exceedance of one or more QC requirements. H – Bias in sample result likely to be high. L – Bias in sample result likely to be low.			

# ANALYTICAL REPORT

December 24, 2019

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Tr

<sup>6</sup>Sr

<sup>7</sup>Qc

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Terracon - Austin, TX

Sample Delivery Group: L1170985  
Samples Received: 12/14/2019  
Project Number: 96197913  
Description: 6909 Ryan Lane

Report To: Kevin Denson  
5307 Industrial Oaks, Suite 160  
Austin, TX 78735

Entire Report Reviewed By:



Chris McCord  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by CPP	Collected date/time 12/12/19 10:45	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398060	1	12/19/19 10:47	12/19/19 10:58	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:24	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/17/19 23:35	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 10:45	12/17/19 17:15	ADM	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 19:30	KME	Mt. Juliet, TN
			Collected by CPP	Collected date/time 12/12/19 11:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398060	1	12/19/19 10:47	12/19/19 10:58	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:27	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:07	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 11:00	12/17/19 17:34	ADM	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 19:43	KME	Mt. Juliet, TN
			Collected by CPP	Collected date/time 12/12/19 11:45	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:29	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:22	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 11:45	12/17/19 17:53	ADM	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 19:56	KME	Mt. Juliet, TN
			Collected by CPP	Collected date/time 12/12/19 12:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:32	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:25	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 12:00	12/17/19 18:12	JAH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 20:09	KME	Mt. Juliet, TN
			Collected by CPP	Collected date/time 12/12/19 14:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:34	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:28	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 14:00	12/17/19 18:31	ADM	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 20:22	KME	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Tr
- 6 Sr
- 7 Qc
- 8 Gl
- 9 Al
- 10 Sc

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW-3(22-23) L1170985-06 Solid

Collected by  
CPP  
Collected date/time  
12/12/19 14:15  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:36	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:32	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 14:15	12/17/19 18:50	ADM	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 20:35	KME	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## MW-4(4-5) L1170985-07 Solid

Collected by  
CPP  
Collected date/time  
12/12/19 15:00  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:39	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:35	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 15:00	12/17/19 19:09	JAH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 20:48	KME	Mt. Juliet, TN

## MW-4(18-19) L1170985-08 Solid

Collected by  
CPP  
Collected date/time  
12/12/19 15:15  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:41	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:38	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 15:15	12/17/19 19:28	JAH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 21:01	KME	Mt. Juliet, TN

## MW-5(4-5) L1170985-09 Solid

Collected by  
CPP  
Collected date/time  
12/12/19 16:30  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:43	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:48	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 16:30	12/17/19 19:47	JAH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 21:14	KME	Mt. Juliet, TN

## MW-5(14-15) L1170985-10 Solid

Collected by  
CPP  
Collected date/time  
12/12/19 16:45  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1398064	1	12/18/19 15:37	12/18/19 15:54	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1397917	1	12/17/19 12:47	12/17/19 17:46	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1397922	5	12/17/19 14:09	12/18/19 00:52	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1397839	1	12/12/19 16:45	12/17/19 20:06	JAH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1399135	1	12/20/19 00:26	12/20/19 21:27	KME	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

- a. Calculated recovery (%R), and
- b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

- a. LCS spiking amounts,
- b. Calculated %R for each analyte, and
- c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a. Samples associated with the MS/MSD clearly identified,
- b. MS/MSD spiking amounts,
- c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d. Calculated %Rs and relative percent differences (RPDs), and
- e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

- a. The amount of analyte measured in the duplicate,
- b. The calculated RPD, and
- c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Chris McCord  
Project Manager

## Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 12/24/2019 11:00					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1170985-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1397917, WG1397922, WG1397839, WG1398064, WG1398060 and WG1399135					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?		X			
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			1
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 12/24/2019 11:00					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1170985-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1397917, WG1397922, WG1397839, WG1398064, WG1398060 and WG1399135					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?				X	
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X	
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X	4
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Laboratory Name: Pace Analytical National	LRC Date: 12/24/2019 11:00
Project Name: 6909 Ryan Lane	Laboratory Job Number: L1170985-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1397917, WG1397922, WG1397839, WG1398064, WG1398060 and WG1399135

ER # <sup>1</sup>	Description
1	8260B WG1397839 2-Butanone (MEK) L1170985-01, 02, 03, 04, 05, 08, 09 and 10: Concentration in the Blank >MQL.
2	8260B WG1397839 Acetone, 2-Butanone (MEK), 1,2,3-Trichloropropane: Percent Recovery is outside of established control limits.
3	8260B WG1397839 Toluene: Percent Recovery is outside of established control limits.
4	6020 WG1397922 Arsenic, Barium: Post Spike Percent Recovery and/or Serial Dilution Relative Percent Difference was outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	87.6		1	12/19/2019 10:58	<a href="#">WG1398060</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00320	0.0300	0.0343	1	12/17/2019 17:24	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	2.47	O1	0.143	0.100	0.571	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Barium	21.4	O1	0.183	0.200	1.14	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Cadmium	0.259	J	0.0914	0.100	0.571	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Chromium	7.77		0.308	0.200	1.14	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Lead	3.95		0.137	0.100	0.571	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Selenium	U		0.217	0.100	0.571	5	12/17/2019 23:35	<a href="#">WG1397922</a>
Silver	U		0.177	0.100	0.571	5	12/17/2019 23:35	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0156	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00217	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Benzene	U		0.000457	0.00100	0.00114	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Bromobenzene	U		0.00120	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000900	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Bromoform	U		0.00683	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Bromomethane	U		0.00423	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00438	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00289	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00177	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00123	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000654	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000514	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Chloroethane	U		0.00123	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Chloroform	U		0.000474	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Chloromethane	U		0.00159	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00105	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00129	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00582	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000600	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Dibromomethane	U		0.00114	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00166	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00194	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00225	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000934	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000657	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000542	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000571	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000788	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00163	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00145	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000799	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00200	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000774	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00175	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000906	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000400	0.00100	0.00114	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000605	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0145	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000985	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00266	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0190	<u>B J J4</u>	0.0143	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00758	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0250	0.0285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000337	0.00100	0.00114	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Naphthalene	U		0.00356	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00135	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Styrene	U		0.00312	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000571	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000445	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000799	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Toluene	0.00195	<u>J</u>	0.00143	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000714	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00550	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000314	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00101	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Trichloroethene	U		0.000457	0.00100	0.00114	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000571	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<u>J4</u>	0.00582	0.0125	0.0143	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	0.00338	<u>J</u>	0.00132	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00131	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00123	0.00500	0.00571	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000780	0.00250	0.00285	1	12/17/2019 17:15	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00546	0.00650	0.00742	1	12/17/2019 17:15	<a href="#">WG1397839</a>
(S) Toluene-d8	104				75.0-131		12/17/2019 17:15	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	95.3				67.0-138		12/17/2019 17:15	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	92.1				70.0-130		12/17/2019 17:15	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.1	50.0	57.1	1	12/20/2019 19:30	<a href="#">WG1399135</a>
TPH C12 - C28	U		17.1	50.0	57.1	1	12/20/2019 19:30	<a href="#">WG1399135</a>
TPH C28 - C35	U		17.1	50.0	57.1	1	12/20/2019 19:30	<a href="#">WG1399135</a>
TPH C6 - C35	U		17.1	50.0	57.1	1	12/20/2019 19:30	<a href="#">WG1399135</a>
(S) o-Terphenyl	105				70.0-130		12/20/2019 19:30	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	89.5		1	12/19/2019 10:58	<a href="#">WG1398060</a>

1 Cp

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00313	0.0300	0.0335	1	12/17/2019 17:27	<a href="#">WG1397917</a>

2 Tc

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	1.42		0.140	0.100	0.558	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Barium	13.7		0.179	0.200	1.12	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Cadmium	0.0989	J	0.0894	0.100	0.558	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Chromium	5.88		0.302	0.200	1.12	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Lead	2.55		0.134	0.100	0.558	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Selenium	U		0.212	0.100	0.558	5	12/18/2019 00:07	<a href="#">WG1397922</a>
Silver	U		0.173	0.100	0.558	5	12/18/2019 00:07	<a href="#">WG1397922</a>

3 Ss

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0153	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00212	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Benzene	U		0.000447	0.00100	0.00112	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Bromobenzene	U		0.00117	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000880	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Bromoform	U		0.00668	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Bromomethane	U		0.00413	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00429	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00283	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00173	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00121	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000640	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000503	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Chloroethane	U		0.00121	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Chloroform	U		0.000464	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Chloromethane	U		0.00155	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00103	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00126	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000586	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Dibromomethane	U		0.00112	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00162	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00190	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00220	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000914	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000642	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000531	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000558	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000771	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00160	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00142	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000782	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00195	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>

10 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000757	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00171	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000886	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000391	0.00100	0.00112	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000592	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0142	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000964	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00260	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0179	<a href="#">B J J4</a>	0.0140	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00742	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0250	0.0279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000329	0.00100	0.00112	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Naphthalene	U		0.00348	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00132	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Styrene	U		0.00305	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000558	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000436	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Tetrachloroethene	0.00118	<a href="#">J</a>	0.000782	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Toluene	0.00235	<a href="#">J</a>	0.00140	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000698	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00538	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000307	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.000986	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Trichloroethene	U		0.000447	0.00100	0.00112	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000558	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<a href="#">J4</a>	0.00570	0.0125	0.0140	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	0.00151	<a href="#">J</a>	0.00130	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00128	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00121	0.00500	0.00558	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000763	0.00250	0.00279	1	12/17/2019 17:34	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00534	0.00650	0.00726	1	12/17/2019 17:34	<a href="#">WG1397839</a>
(S) Toluene-d8	99.8				75.0-131		12/17/2019 17:34	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	94.3				67.0-138		12/17/2019 17:34	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	94.0				70.0-130		12/17/2019 17:34	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.8	50.0	55.8	1	12/20/2019 19:43	<a href="#">WG1399135</a>
TPH C12 - C28	U		16.8	50.0	55.8	1	12/20/2019 19:43	<a href="#">WG1399135</a>
TPH C28 - C35	U		16.8	50.0	55.8	1	12/20/2019 19:43	<a href="#">WG1399135</a>
TPH C6 - C35	U		16.8	50.0	55.8	1	12/20/2019 19:43	<a href="#">WG1399135</a>
(S) o-Terphenyl	104				70.0-130		12/20/2019 19:43	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	88.6		1	12/18/2019 15:54	<a href="#">WG1398064</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00316	0.0300	0.0339	1	12/17/2019 17:29	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	1.70		0.141	0.100	0.565	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Barium	12.9		0.181	0.200	1.13	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Cadmium	0.128	J	0.0903	0.100	0.565	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Chromium	6.53		0.305	0.200	1.13	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Lead	2.33		0.136	0.100	0.565	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Selenium	U		0.215	0.100	0.565	5	12/18/2019 00:22	<a href="#">WG1397922</a>
Silver	U		0.175	0.100	0.565	5	12/18/2019 00:22	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0155	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00215	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Benzene	U		0.000452	0.00100	0.00113	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Bromobenzene	U		0.00119	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000890	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Bromoform	U		0.00675	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Bromomethane	U		0.00418	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00434	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00286	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00175	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00122	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000647	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000508	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Chloroethane	U		0.00122	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Chloroform	U		0.000469	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Chloromethane	U		0.00157	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00104	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00128	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000593	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Dibromomethane	U		0.00113	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00164	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00192	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00222	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000924	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000649	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000536	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000565	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000779	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00161	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00143	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000790	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00198	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000766	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00173	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000896	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000395	0.00100	0.00113	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000599	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0143	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000975	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00263	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0173	<a href="#">B J J4</a>	0.0141	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00750	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0250	0.0282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000333	0.00100	0.00113	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Naphthalene	U		0.00352	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00133	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Styrene	U		0.00308	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000565	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000440	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000762	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000790	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Toluene	0.00290	<a href="#">J</a>	0.00141	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000706	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00544	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000311	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.000997	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Trichloroethene	U		0.000452	0.00100	0.00113	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000565	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<a href="#">J4</a>	0.00576	0.0125	0.0141	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00131	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00130	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00122	0.00500	0.00565	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000771	0.00250	0.00282	1	12/17/2019 17:53	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00540	0.00650	0.00734	1	12/17/2019 17:53	<a href="#">WG1397839</a>
(S) Toluene-d8	100				75.0-131		12/17/2019 17:53	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	95.8				67.0-138		12/17/2019 17:53	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	91.3				70.0-130		12/17/2019 17:53	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.9	50.0	56.5	1	12/20/2019 19:56	<a href="#">WG1399135</a>
TPH C12 - C28	U		16.9	50.0	56.5	1	12/20/2019 19:56	<a href="#">WG1399135</a>
TPH C28 - C35	U		16.9	50.0	56.5	1	12/20/2019 19:56	<a href="#">WG1399135</a>
TPH C6 - C35	U		16.9	50.0	56.5	1	12/20/2019 19:56	<a href="#">WG1399135</a>
(S) o-Terphenyl	102				70.0-130		12/20/2019 19:56	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	90.3		1	12/18/2019 15:54	<a href="#">WG1398064</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00310	0.0300	0.0332	1	12/17/2019 17:32	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	1.96		0.138	0.100	0.554	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Barium	13.1		0.177	0.200	1.11	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Cadmium	0.147	J	0.0886	0.100	0.554	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Chromium	5.62		0.299	0.200	1.11	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Lead	1.86		0.133	0.100	0.554	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Selenium	0.261	J	0.210	0.100	0.554	5	12/18/2019 00:25	<a href="#">WG1397922</a>
Silver	U		0.172	0.100	0.554	5	12/18/2019 00:25	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0152	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00210	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Benzene	U		0.000443	0.00100	0.00111	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Bromobenzene	U		0.00116	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000872	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Bromoform	U		0.00662	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Bromomethane	U		0.00410	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00425	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00280	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00172	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00120	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000634	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000498	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Chloroethane	U		0.00120	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Chloroform	U		0.000459	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Chloromethane	U		0.00154	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00102	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00125	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00565	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000581	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Dibromomethane	U		0.00111	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00161	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00188	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00218	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000906	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000637	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000526	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000554	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000764	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00158	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00141	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000775	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00194	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000751	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00169	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000878	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000388	0.00100	0.00111	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000587	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0141	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000956	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00258	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0250	<a href="#">B J J4</a>	0.0138	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00735	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0250	0.0277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000327	0.00100	0.00111	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Naphthalene	U		0.00345	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00131	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Styrene	U		0.00302	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000554	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000432	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000775	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Toluene	0.00271	<a href="#">J</a>	0.00138	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000692	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00534	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000304	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.000978	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Trichloroethene	0.000872	<a href="#">J</a>	0.000443	0.00100	0.00111	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000554	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<a href="#">J4</a>	0.00565	0.0125	0.0138	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00128	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00127	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00120	0.00500	0.00554	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000756	0.00250	0.00277	1	12/17/2019 18:12	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00529	0.00650	0.00720	1	12/17/2019 18:12	<a href="#">WG1397839</a>
(S) Toluene-d8	103				75.0-131		12/17/2019 18:12	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	95.1				67.0-138		12/17/2019 18:12	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	95.5				70.0-130		12/17/2019 18:12	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.6	50.0	55.4	1	12/20/2019 20:09	<a href="#">WG1399135</a>
TPH C12 - C28	U		16.6	50.0	55.4	1	12/20/2019 20:09	<a href="#">WG1399135</a>
TPH C28 - C35	U		16.6	50.0	55.4	1	12/20/2019 20:09	<a href="#">WG1399135</a>
TPH C6 - C35	U		16.6	50.0	55.4	1	12/20/2019 20:09	<a href="#">WG1399135</a>
(S) o-Terphenyl	103				70.0-130		12/20/2019 20:09	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	84.7		1	12/18/2019 15:54	<a href="#">WG1398064</a>

1 Cp

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00330	0.0300	0.0354	1	12/17/2019 17:34	<a href="#">WG1397917</a>

2 Tc

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	3.98		0.147	0.100	0.590	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Barium	22.0		0.189	0.200	1.18	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Cadmium	0.175	J	0.0944	0.100	0.590	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Chromium	7.58		0.319	0.200	1.18	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Lead	9.02		0.142	0.100	0.590	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Selenium	U		0.224	0.100	0.590	5	12/18/2019 00:28	<a href="#">WG1397922</a>
Silver	U		0.183	0.100	0.590	5	12/18/2019 00:28	<a href="#">WG1397922</a>

3 Ss

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	0.271	J4	0.0162	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00224	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Benzene	U		0.000472	0.00100	0.00118	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Bromobenzene	U		0.00124	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000930	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Bromoform	U		0.00706	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Bromomethane	U		0.00437	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
n-Butylbenzene	0.0814		0.00453	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
sec-Butylbenzene	0.0319		0.00299	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
tert-Butylbenzene	0.00467	J	0.00183	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00127	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000676	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000531	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Chloroethane	U		0.00127	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Chloroform	U		0.000490	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Chloromethane	U		0.00164	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00109	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00133	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000619	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Dibromomethane	U		0.00118	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00171	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00201	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00232	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000965	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000678	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000560	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000590	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000814	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00169	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00150	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000826	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00206	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>

10 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000800	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00181	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000936	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000413	0.00100	0.00118	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000625	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0150	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Isopropylbenzene	0.0184		0.00102	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00275	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.137	<a href="#">BJ4</a>	0.0147	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00783	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0250	0.0295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Methyl tert-butyl ether	0.000578	<a href="#">J</a>	0.000348	0.00100	0.00118	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Naphthalene	U		0.00368	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
n-Propylbenzene	0.0706		0.00139	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Styrene	U		0.00322	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000590	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000460	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000796	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000826	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Toluene	0.00236	<a href="#">J</a>	0.00147	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000737	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00569	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000324	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00104	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Trichloroethene	U		0.000472	0.00100	0.00118	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000590	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<a href="#">J4</a>	0.00602	0.0125	0.0147	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00137	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00136	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00127	0.00500	0.00590	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000806	0.00250	0.00295	1	12/17/2019 18:31	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00564	0.00650	0.00767	1	12/17/2019 18:31	<a href="#">WG1397839</a>
(S) Toluene-d8	98.8				75.0-131		12/17/2019 18:31	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	105				67.0-138		12/17/2019 18:31	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	101				70.0-130		12/17/2019 18:31	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.7	50.0	59.0	1	12/20/2019 20:22	<a href="#">WG1399135</a>
TPH C12 - C28	U		17.7	50.0	59.0	1	12/20/2019 20:22	<a href="#">WG1399135</a>
TPH C28 - C35	U		17.7	50.0	59.0	1	12/20/2019 20:22	<a href="#">WG1399135</a>
TPH C6 - C35	U		17.7	50.0	59.0	1	12/20/2019 20:22	<a href="#">WG1399135</a>
(S) o-Terphenyl	103				70.0-130		12/20/2019 20:22	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	82.1		1	12/18/2019 15:54	<a href="#">WG1398064</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00341	0.0300	0.0366	1	12/17/2019 17:36	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	1.64		0.152	0.100	0.609	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Barium	25.1		0.195	0.200	1.22	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Cadmium	U		0.0975	0.100	0.609	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Chromium	5.48		0.329	0.200	1.22	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Lead	1.61		0.146	0.100	0.609	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Selenium	0.520	J	0.232	0.100	0.609	5	12/18/2019 00:32	<a href="#">WG1397922</a>
Silver	U		0.189	0.100	0.609	5	12/18/2019 00:32	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0167	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00232	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Benzene	U		0.000487	0.00100	0.00122	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Bromobenzene	U		0.00128	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000960	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Bromoform	U		0.00729	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Bromomethane	U		0.00451	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
n-Butylbenzene	0.00485	J	0.00468	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00308	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00189	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00132	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000698	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000548	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Chloroethane	U		0.00132	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Chloroform	U		0.000506	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Chloromethane	U		0.00169	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00112	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00138	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00621	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000640	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Dibromomethane	U		0.00122	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00177	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00207	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00240	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000997	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000701	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000579	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000609	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000841	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00174	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00155	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000853	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00213	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000826	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00186	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000966	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000426	0.00100	0.00122	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000646	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0155	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Isopropylbenzene	0.00257	J	0.00105	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00284	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
2-Butanone (MEK)	U	J4	0.0152	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00809	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0122	0.0250	0.0305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000359	0.00100	0.00122	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Naphthalene	U		0.00380	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
n-Propylbenzene	0.00537	J	0.00144	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Styrene	U		0.00333	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000609	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000475	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000822	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000853	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Toluene	0.00178	J	0.00152	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000762	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00587	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000335	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00108	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Trichloroethene	U		0.000487	0.00100	0.00122	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000609	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	J4	0.00621	0.0125	0.0152	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00141	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00140	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00132	0.00500	0.00609	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000832	0.00250	0.00305	1	12/17/2019 18:50	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00582	0.00650	0.00792	1	12/17/2019 18:50	<a href="#">WG1397839</a>
(S) Toluene-d8	99.1				75.0-131		12/17/2019 18:50	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	96.4				67.0-138		12/17/2019 18:50	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	96.1				70.0-130		12/17/2019 18:50	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		18.3	50.0	60.9	1	12/20/2019 20:35	<a href="#">WG1399135</a>
TPH C12 - C28	U		18.3	50.0	60.9	1	12/20/2019 20:35	<a href="#">WG1399135</a>
TPH C28 - C35	U		18.3	50.0	60.9	1	12/20/2019 20:35	<a href="#">WG1399135</a>
TPH C6 - C35	U		18.3	50.0	60.9	1	12/20/2019 20:35	<a href="#">WG1399135</a>
(S) o-Terphenyl	106				70.0-130		12/20/2019 20:35	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	72.7		1	12/18/2019 15:54	<a href="#">WG1398064</a>

<sup>1</sup> Cp

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00385	0.0300	0.0413	1	12/17/2019 17:39	<a href="#">WG1397917</a>

<sup>2</sup> Tc

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	6.03		0.172	0.100	0.688	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Barium	183		0.220	0.200	1.38	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Cadmium	0.403	J	0.110	0.100	0.688	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Chromium	30.3		0.371	0.200	1.38	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Lead	17.6		0.165	0.100	0.688	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Selenium	0.447	J	0.261	0.100	0.688	5	12/18/2019 00:35	<a href="#">WG1397922</a>
Silver	U		0.213	0.100	0.688	5	12/18/2019 00:35	<a href="#">WG1397922</a>

<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0188	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00261	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Benzene	U		0.000550	0.00100	0.00138	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Bromobenzene	U		0.00144	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.00108	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Bromoform	U		0.00822	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Bromomethane	U		0.00509	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00528	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00348	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00213	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00149	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Chlorobenzene	0.00216	J	0.000788	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000619	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Chloroethane	U		0.00149	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Chloroform	U		0.000571	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Chloromethane	U		0.00191	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00127	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00155	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00701	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000722	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Dibromomethane	U		0.00138	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00199	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00234	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00271	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.00112	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000791	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000653	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000688	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000949	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00197	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00175	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000963	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00241	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>

<sup>10</sup> Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000932	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00210	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.00109	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000481	0.00100	0.00138	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000729	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0175	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.00119	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00320	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
2-Butanone (MEK)	U	J4	0.0172	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00913	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0138	0.0250	0.0344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000406	0.00100	0.00138	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Naphthalene	U		0.00429	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00162	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Styrene	U		0.00375	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000688	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000536	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000928	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000963	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Toluene	0.00308	J	0.00172	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000859	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00663	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000378	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00121	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Trichloroethene	U		0.000550	0.00100	0.00138	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000688	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	J4	0.00701	0.0125	0.0172	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00160	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00158	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00149	0.00500	0.00688	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000939	0.00250	0.00344	1	12/17/2019 19:09	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00657	0.00650	0.00894	1	12/17/2019 19:09	<a href="#">WG1397839</a>
(S) Toluene-d8	99.0				75.0-131		12/17/2019 19:09	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	94.6				67.0-138		12/17/2019 19:09	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	95.0				70.0-130		12/17/2019 19:09	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		20.6	50.0	68.8	1	12/20/2019 20:48	<a href="#">WG1399135</a>
TPH C12 - C28	U		20.6	50.0	68.8	1	12/20/2019 20:48	<a href="#">WG1399135</a>
TPH C28 - C35	U		20.6	50.0	68.8	1	12/20/2019 20:48	<a href="#">WG1399135</a>
TPH C6 - C35	U		20.6	50.0	68.8	1	12/20/2019 20:48	<a href="#">WG1399135</a>
(S) o-Terphenyl	104				70.0-130		12/20/2019 20:48	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	88.1		1	12/18/2019 15:54	<a href="#">WG1398064</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00318	0.0300	0.0341	1	12/17/2019 17:41	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	2.24		0.142	0.100	0.568	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Barium	20.7		0.182	0.200	1.14	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Cadmium	0.143	J	0.0908	0.100	0.568	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Chromium	6.67		0.307	0.200	1.14	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Lead	3.22		0.136	0.100	0.568	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Selenium	U		0.216	0.100	0.568	5	12/18/2019 00:38	<a href="#">WG1397922</a>
Silver	U		0.176	0.100	0.568	5	12/18/2019 00:38	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0156	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00216	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Benzene	U		0.000454	0.00100	0.00114	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Bromobenzene	U		0.00119	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000895	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Bromoform	U		0.00679	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Bromomethane	U		0.00420	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00436	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00287	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00176	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00123	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Chlorobenzene	0.00270	J	0.000651	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000511	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Chloroethane	U		0.00123	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Chloroform	U		0.000471	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Chloromethane	U		0.00158	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00104	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00128	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000596	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Dibromomethane	U		0.00114	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	0.120		0.00165	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	0.00292	J	0.00193	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	0.0119		0.00224	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000929	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000653	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000539	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000568	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000783	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00162	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00144	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000795	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00199	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000770	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00174	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000900	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000397	0.00100	0.00114	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000602	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0144	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000980	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00265	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0173	<u>B J J4</u>	0.0142	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00754	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0250	0.0284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000335	0.00100	0.00114	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Naphthalene	U		0.00354	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00134	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Styrene	U		0.00310	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000568	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000443	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	0.00120	<u>J</u>	0.000766	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000795	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Toluene	0.00186	<u>J</u>	0.00142	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000710	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00547	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000312	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00100	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Trichloroethene	U		0.000454	0.00100	0.00114	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000568	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<u>J4</u>	0.00579	0.0125	0.0142	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00132	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00131	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00123	0.00500	0.00568	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000775	0.00250	0.00284	1	12/17/2019 19:28	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00543	0.00650	0.00738	1	12/17/2019 19:28	<a href="#">WG1397839</a>
(S) Toluene-d8	102				75.0-131		12/17/2019 19:28	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	95.9				67.0-138		12/17/2019 19:28	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	94.1				70.0-130		12/17/2019 19:28	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.0	50.0	56.8	1	12/20/2019 21:01	<a href="#">WG1399135</a>
TPH C12 - C28	U		17.0	50.0	56.8	1	12/20/2019 21:01	<a href="#">WG1399135</a>
TPH C28 - C35	U		17.0	50.0	56.8	1	12/20/2019 21:01	<a href="#">WG1399135</a>
TPH C6 - C35	U		17.0	50.0	56.8	1	12/20/2019 21:01	<a href="#">WG1399135</a>
(S) o-Terphenyl	108				70.0-130		12/20/2019 21:01	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	79.7		1	12/18/2019 15:54	<a href="#">WG1398064</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00351	0.0300	0.0377	1	12/17/2019 17:43	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	4.42		0.157	0.100	0.628	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Barium	137		0.201	0.200	1.26	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Cadmium	0.441	J	0.100	0.100	0.628	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Chromium	23.7		0.339	0.200	1.26	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Lead	49.5		0.151	0.100	0.628	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Selenium	0.272	J	0.239	0.100	0.628	5	12/18/2019 00:48	<a href="#">WG1397922</a>
Silver	U		0.195	0.100	0.628	5	12/18/2019 00:48	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0172	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00239	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Benzene	U		0.000502	0.00100	0.00126	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Bromobenzene	U		0.00132	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000989	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Bromoform	U		0.00751	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Bromomethane	U		0.00464	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00482	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00318	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00195	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00136	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000719	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000565	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Chloroethane	U		0.00136	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Chloroform	U		0.000521	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Chloromethane	U		0.00174	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00115	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00142	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00640	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000659	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Dibromomethane	U		0.00126	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	0.00475	J	0.00182	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00213	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00247	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.00103	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000722	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000596	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000628	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000866	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00180	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00159	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000879	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00220	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000851	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00192	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000995	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000439	0.00100	0.00126	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000665	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0159	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.00108	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00292	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0254	<u>B J J4</u>	0.0157	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00834	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0126	0.0250	0.0314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000370	0.00100	0.00126	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Naphthalene	U		0.00392	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00148	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Styrene	U		0.00343	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000628	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000490	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000847	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000879	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Toluene	0.00169	<u>J</u>	0.00157	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000785	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00605	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000345	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.00111	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Trichloroethene	U		0.000502	0.00100	0.00126	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000628	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<u>J4</u>	0.00640	0.0125	0.0157	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00146	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00144	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00136	0.00500	0.00628	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000857	0.00250	0.00314	1	12/17/2019 19:47	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00600	0.00650	0.00816	1	12/17/2019 19:47	<a href="#">WG1397839</a>
(S) Toluene-d8	101				75.0-131		12/17/2019 19:47	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	96.1				67.0-138		12/17/2019 19:47	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	103				70.0-130		12/17/2019 19:47	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		18.8	50.0	62.8	1	12/20/2019 21:14	<a href="#">WG1399135</a>
TPH C12 - C28	U		18.8	50.0	62.8	1	12/20/2019 21:14	<a href="#">WG1399135</a>
TPH C28 - C35	U		18.8	50.0	62.8	1	12/20/2019 21:14	<a href="#">WG1399135</a>
TPH C6 - C35	U		18.8	50.0	62.8	1	12/20/2019 21:14	<a href="#">WG1399135</a>
(S) o-Terphenyl	105				70.0-130		12/20/2019 21:14	<a href="#">WG1399135</a>



## Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	88.5		1	12/18/2019 15:54	<a href="#">WG1398064</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

## Mercury by Method 7471A

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	U		0.00316	0.0300	0.0339	1	12/17/2019 17:46	<a href="#">WG1397917</a>

## Metals (ICPMS) by Method 6020

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Arsenic	4.32		0.141	0.100	0.565	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Barium	21.5		0.181	0.200	1.13	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Cadmium	0.131	J	0.0904	0.100	0.565	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Chromium	5.77		0.305	0.200	1.13	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Lead	2.82		0.136	0.100	0.565	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Selenium	U		0.215	0.100	0.565	5	12/18/2019 00:52	<a href="#">WG1397922</a>
Silver	U		0.175	0.100	0.565	5	12/18/2019 00:52	<a href="#">WG1397922</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	<u>Qualifier</u>	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U	J4	0.0155	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Acrylonitrile	U		0.00215	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Benzene	U		0.000452	0.00100	0.00113	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Bromobenzene	U		0.00119	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Bromodichloromethane	U		0.000890	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Bromoform	U		0.00676	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Bromomethane	U		0.00418	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
n-Butylbenzene	U		0.00434	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
sec-Butylbenzene	U		0.00286	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
tert-Butylbenzene	U		0.00175	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Carbon tetrachloride	U		0.00122	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Chlorobenzene	U		0.000647	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Chlorodibromomethane	U		0.000508	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Chloroethane	U		0.00122	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Chloroform	U		0.000469	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Chloromethane	U		0.00157	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
2-Chlorotoluene	U		0.00104	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
4-Chlorotoluene	U		0.00128	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2-Dibromoethane	U		0.000593	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Dibromomethane	U		0.00113	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2-Dichlorobenzene	U		0.00164	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,3-Dichlorobenzene	U		0.00192	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,4-Dichlorobenzene	U		0.00223	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Dichlorodifluoromethane	U		0.000924	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1-Dichloroethane	U		0.000650	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2-Dichloroethane	U		0.000537	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1-Dichloroethene	U		0.000565	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
cis-1,2-Dichloroethene	U		0.000779	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
trans-1,2-Dichloroethene	U		0.00162	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2-Dichloropropane	U		0.00143	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1-Dichloropropene	U		0.000791	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,3-Dichloropropane	U		0.00198	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000766	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
trans-1,3-Dichloropropene	U		0.00173	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
2,2-Dichloropropane	U		0.000896	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Di-isopropyl ether	U		0.000395	0.00100	0.00113	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Ethylbenzene	U		0.000599	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Hexachloro-1,3-butadiene	U		0.0143	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Isopropylbenzene	U		0.000975	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
p-Isopropyltoluene	U		0.00263	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
2-Butanone (MEK)	0.0145	<a href="#">B J J4</a>	0.0141	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Methylene Chloride	U		0.00750	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0250	0.0282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Methyl tert-butyl ether	U		0.000333	0.00100	0.00113	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Naphthalene	U		0.00352	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
n-Propylbenzene	U		0.00133	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Styrene	U		0.00308	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1,1,2-Tetrachloroethane	U		0.000565	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1,2,2-Tetrachloroethane	U		0.000441	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Tetrachloroethene	U		0.000791	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Toluene	0.00384	<a href="#">J</a>	0.00141	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2,3-Trichlorobenzene	U		0.000706	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2,4-Trichlorobenzene	U		0.00545	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1,1-Trichloroethane	U		0.000311	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,1,2-Trichloroethane	U		0.000998	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Trichloroethene	U		0.000452	0.00100	0.00113	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Trichlorofluoromethane	U		0.000565	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2,3-Trichloropropane	U	<a href="#">J4</a>	0.00576	0.0125	0.0141	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2,4-Trimethylbenzene	U		0.00131	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,2,3-Trimethylbenzene	U		0.00130	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
1,3,5-Trimethylbenzene	U		0.00122	0.00500	0.00565	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Vinyl chloride	U		0.000772	0.00250	0.00282	1	12/17/2019 20:06	<a href="#">WG1397839</a>
Xylenes, Total	U		0.00540	0.00650	0.00734	1	12/17/2019 20:06	<a href="#">WG1397839</a>
(S) Toluene-d8	102			75.0-131			12/17/2019 20:06	<a href="#">WG1397839</a>
(S) 4-Bromofluorobenzene	94.2			67.0-138			12/17/2019 20:06	<a href="#">WG1397839</a>
(S) 1,2-Dichloroethane-d4	90.7			70.0-130			12/17/2019 20:06	<a href="#">WG1397839</a>



## TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.9	50.0	56.5	1	12/20/2019 21:27	<a href="#">WG1399135</a>
TPH C12 - C28	U		16.9	50.0	56.5	1	12/20/2019 21:27	<a href="#">WG1399135</a>
TPH C28 - C35	U		16.9	50.0	56.5	1	12/20/2019 21:27	<a href="#">WG1399135</a>
TPH C6 - C35	U		16.9	50.0	56.5	1	12/20/2019 21:27	<a href="#">WG1399135</a>
(S) o-Terphenyl	110			70.0-130			12/20/2019 21:27	<a href="#">WG1399135</a>



## Method Blank (MB)

(MB) R3484401-1 12/19/19 10:58

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%

Total Solids 0.000

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## L1170980-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1170980-01 12/19/19 10:58 • (DUP) R3484401-3 12/19/19 10:58

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%

Total Solids 69.9 69.8 1 0.105 10

## Laboratory Control Sample (LCS)

(LCS) R3484401-2 12/19/19 10:58

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	

Total Solids 50.0 50.0 100 85.0-115

L1170985-03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3483931-1 12/18/19 15:54

Analyst	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.00200			

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## L1170985-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1170985-07 12/18/19 15:54 • (DUP) R3483931-3 12/18/19 15:54

Analyst	Original Result %	DUP Result %	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Total Solids	72.7	70.6	1	3.01		10

## Laboratory Control Sample (LCS)

(LCS) R3483931-2 12/18/19 15:54

Analyst	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85.0-115	

<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



L1170985-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3483405-1 12/17/19 16:54

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.00280	0.0300

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483405-2 12/17/19 16:57 • (LCSD) R3483405-3 12/17/19 16:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Mercury	0.500	0.474	0.506	94.9	101	80.0-120			6.48	20

## L1171345-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171345-02 12/17/19 17:02 • (MS) R3483405-4 12/17/19 17:04 • (MSD) R3483405-5 12/17/19 17:07

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution 1	Rec. Limits 75.0-125	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury	0.631	0.0553	0.662	0.699	96.2	102					5.32	20

## QUALITY CONTROL SUMMARY



L1170985-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3483410-1 12/17/19 23:25

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.125	0.500
Barium	U		0.160	1.00
Cadmium	U		0.0800	0.500
Chromium	U		0.270	1.00
Lead	U		0.120	0.500
Selenium	U		0.190	0.500
Silver	U		0.155	0.500

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483410-6 12/18/19 00:11 • (LCSD) R3483410-7 12/18/19 00:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits
Arsenic	100	85.2	97.9	85.2	97.9	80.0-120			13.9	20
Barium	100	89.1	99.8	89.1	99.8	80.0-120			11.3	20
Cadmium	100	85.9	100	85.9	100	80.0-120			15.5	20
Chromium	100	87.8	101	87.8	101	80.0-120			14.2	20
Lead	100	85.6	101	85.6	101	80.0-120			16.1	20
Selenium	100	83.4	98.4	83.4	98.4	80.0-120			16.5	20
Silver	20.0	18.6	21.4	93.2	107	80.0-120			13.6	20

<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## L1170985-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170985-01 12/17/19 23:35 • (MS) R3483410-4 12/17/19 23:45 • (MSD) R3483410-5 12/17/19 23:48

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Arsenic	22.8	2.47	102	95.2	86.8	81.2	5	75.0-125			6.53	20
Barium	22.8	21.4	122	118	88.5	85.0	5	75.0-125			3.28	20
Cadmium	22.8	0.259	105	101	92.0	87.9	5	75.0-125			4.50	20
Chromium	22.8	7.77	108	102	87.9	82.7	5	75.0-125			5.68	20
Lead	22.8	3.95	104	101	87.6	85.0	5	75.0-125			2.86	20
Selenium	22.8	U	103	97.9	90.5	85.8	5	75.0-125			5.36	20
Silver	4.57	U	22.4	21.4	98.1	93.5	5	75.0-125			4.80	20



L1170985-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3483576-2 12/17/19 13:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
Acetone	U		0.0137	0.0250	<sup>1</sup> Cp
Acrylonitrile	U		0.00190	0.0125	<sup>2</sup> Tc
Benzene	U		0.000400	0.00100	<sup>3</sup> Ss
Bromobenzene	U		0.00105	0.0125	<sup>4</sup> Cn
Bromodichloromethane	U		0.000788	0.00250	<sup>5</sup> Tr
Bromoform	U		0.00598	0.0250	<sup>6</sup> Sr
Bromomethane	U		0.00370	0.0125	<sup>7</sup> Qc
n-Butylbenzene	U		0.00384	0.0125	<sup>8</sup> Gl
sec-Butylbenzene	U		0.00253	0.0125	<sup>9</sup> Al
tert-Butylbenzene	U		0.00155	0.00500	<sup>10</sup> Sc
Carbon tetrachloride	U		0.00108	0.00500	
Chlorobenzene	U		0.000573	0.00250	
Chlorodibromomethane	U		0.000450	0.00250	
Chloroethane	U		0.00108	0.00500	
Chloroform	U		0.000415	0.00250	
Chloromethane	U		0.00139	0.0125	
2-Chlorotoluene	U		0.000920	0.00250	
4-Chlorotoluene	U		0.00113	0.00500	
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250	
1,2-Dibromoethane	U		0.000525	0.00250	
Dibromomethane	U		0.00100	0.00500	
1,2-Dichlorobenzene	U		0.00145	0.00500	
1,3-Dichlorobenzene	U		0.00170	0.00500	
1,4-Dichlorobenzene	U		0.00197	0.00500	
Dichlorodifluoromethane	U		0.000818	0.00250	
1,1-Dichloroethane	U		0.000575	0.00250	
1,2-Dichloroethane	U		0.000475	0.00250	
1,1-Dichloroethene	U		0.000500	0.00250	
cis-1,2-Dichloroethene	U		0.000690	0.00250	
trans-1,2-Dichloroethene	U		0.00143	0.00500	
1,2-Dichloropropane	U		0.00127	0.00500	
1,1-Dichloropropene	U		0.000700	0.00250	
1,3-Dichloropropane	U		0.00175	0.00500	
cis-1,3-Dichloropropene	U		0.000678	0.00250	
trans-1,3-Dichloropropene	U		0.00153	0.00500	
2,2-Dichloropropane	U		0.000793	0.00250	
Di-isopropyl ether	U		0.000350	0.00100	
Ethylbenzene	U		0.000530	0.00250	
Hexachloro-1,3-butadiene	U		0.0127	0.0250	
Isopropylbenzene	U		0.000863	0.00250	



L1170985-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3483576-2 12/17/19 13:54

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	
p-Isopropyltoluene	U		0.00233	0.00500	<sup>1</sup> Cp
2-Butanone (MEK)	0.0749		0.0125	0.0250	<sup>2</sup> Tc
Methylene Chloride	U		0.00664	0.0250	<sup>3</sup> Ss
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250	<sup>4</sup> Cn
Methyl tert-butyl ether	U		0.000295	0.00100	<sup>5</sup> Tr
Naphthalene	U		0.00312	0.0125	
n-Propylbenzene	U		0.00118	0.00500	
Styrene	U		0.00273	0.0125	
1,1,2-Tetrachloroethane	U		0.000500	0.00250	
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250	
Tetrachloroethene	U		0.000700	0.00250	
Toluene	U		0.00125	0.00500	
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250	
1,2,3-Trichlorobenzene	0.000875	J	0.000625	0.00250	
1,2,4-Trichlorobenzene	U		0.00482	0.0125	
1,1,1-Trichloroethane	U		0.000275	0.00250	
1,1,2-Trichloroethane	U		0.000883	0.00250	
Trichloroethene	U		0.000400	0.00100	
Trichlorofluoromethane	U		0.000500	0.00250	
1,2,3-Trichloropropane	U		0.00510	0.0125	
1,2,3-Trimethylbenzene	U		0.00115	0.00500	
1,2,4-Trimethylbenzene	U		0.00116	0.00500	
1,3,5-Trimethylbenzene	U		0.00108	0.00500	
Vinyl chloride	U		0.000683	0.00250	
Xylenes, Total	U		0.00478	0.00650	
(S) Toluene-d8	101			75.0-131	
(S) 4-Bromofluorobenzene	92.1			67.0-138	
(S) 1,2-Dichloroethane-d4	95.6			70.0-130	

## Laboratory Control Sample (LCS)

(LCS) R3483576-1 12/17/19 12:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	1.16	186	10.0-160	J4
Acrylonitrile	0.625	0.906	145	45.0-153	
Benzene	0.125	0.127	102	70.0-123	
Bromobenzene	0.125	0.131	105	73.0-121	
Bromodichloromethane	0.125	0.130	104	73.0-121	



## Laboratory Control Sample (LCS)

(LCS) R3483576-1 12/17/19 12:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromoform	0.125	0.103	82.4	64.0-132	
Bromomethane	0.125	0.115	92.0	56.0-147	
n-Butylbenzene	0.125	0.106	84.8	68.0-135	
sec-Butylbenzene	0.125	0.124	99.2	74.0-130	
tert-Butylbenzene	0.125	0.133	106	75.0-127	
Carbon tetrachloride	0.125	0.142	114	66.0-128	
Chlorobenzene	0.125	0.135	108	76.0-128	
Chlorodibromomethane	0.125	0.139	111	74.0-127	
Chloroethane	0.125	0.112	89.6	61.0-134	
Chloroform	0.125	0.123	98.4	72.0-123	
Chloromethane	0.125	0.124	99.2	51.0-138	
2-Chlorotoluene	0.125	0.134	107	75.0-124	
4-Chlorotoluene	0.125	0.133	106	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.158	126	59.0-130	
1,2-Dibromoethane	0.125	0.132	106	74.0-128	
Dibromomethane	0.125	0.127	102	75.0-122	
1,2-Dichlorobenzene	0.125	0.123	98.4	76.0-124	
1,3-Dichlorobenzene	0.125	0.136	109	76.0-125	
1,4-Dichlorobenzene	0.125	0.112	89.6	77.0-121	
Dichlorodifluoromethane	0.125	0.127	102	43.0-156	
1,1-Dichloroethane	0.125	0.126	101	70.0-127	
1,2-Dichloroethane	0.125	0.149	119	65.0-131	
1,1-Dichloroethene	0.125	0.112	89.6	65.0-131	
cis-1,2-Dichloroethene	0.125	0.143	114	73.0-125	
trans-1,2-Dichloroethene	0.125	0.117	93.6	71.0-125	
1,2-Dichloropropane	0.125	0.124	99.2	74.0-125	
1,1-Dichloropropene	0.125	0.122	97.6	73.0-125	
1,3-Dichloropropane	0.125	0.131	105	80.0-125	
cis-1,3-Dichloropropene	0.125	0.129	103	76.0-127	
trans-1,3-Dichloropropene	0.125	0.146	117	73.0-127	
2,2-Dichloropropane	0.125	0.121	96.8	59.0-135	
Di-isopropyl ether	0.125	0.112	89.6	60.0-136	
Ethylbenzene	0.125	0.132	106	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.101	80.8	57.0-150	
Isopropylbenzene	0.125	0.106	84.8	72.0-127	
p-Isopropyltoluene	0.125	0.115	92.0	72.0-133	
2-Butanone (MEK)	0.625	1.09	174	30.0-160	J4
Methylene Chloride	0.125	0.119	95.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.766	123	56.0-143	
Methyl tert-butyl ether	0.125	0.119	95.2	66.0-132	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



L1170985-01,02,03,04,05,06,07,08,09,10

## Laboratory Control Sample (LCS)

(LCS) R3483576-1 12/17/19 12:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Naphthalene	0.125	0.130	104	59.0-130	
n-Propylbenzene	0.125	0.124	99.2	74.0-126	
Styrene	0.125	0.141	113	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.108	86.4	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.139	111	68.0-128	
Tetrachloroethene	0.125	0.105	84.0	70.0-136	
Toluene	0.125	0.126	101	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.100	80.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0910	72.8	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.0949	75.9	62.0-137	
1,1,1-Trichloroethane	0.125	0.130	104	69.0-126	
1,1,2-Trichloroethane	0.125	0.130	104	78.0-123	
Trichloroethene	0.125	0.127	102	76.0-126	
Trichlorofluoromethane	0.125	0.0906	72.5	61.0-142	
1,2,3-Trichloropropane	0.125	0.174	139	67.0-129	J4
1,2,3-Trimethylbenzene	0.125	0.129	103	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.130	104	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.132	106	73.0-127	
Vinyl chloride	0.125	0.122	97.6	63.0-134	
Xylenes, Total	0.375	0.360	96.0	72.0-127	
(S) Toluene-d8		95.8		75.0-131	
(S) 4-Bromofluorobenzene		99.1		67.0-138	
(S) 1,2-Dichloroethane-d4		111		70.0-130	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## L1171021-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171021-01 12/17/19 20:44 • (MS) R3483576-3 12/17/19 21:03 • (MSD) R3483576-4 12/17/19 21:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Acetone	25.0	U	28.4	32.9	114	132	40	10.0-160		14.7	40
Acrylonitrile	25.0	U	32.0	27.1	128	108	40	10.0-160		16.6	40
Benzene	5.00	0.0330	5.67	5.93	113	118	40	10.0-149		4.48	37
Bromobenzene	5.00	U	5.27	5.79	105	116	40	10.0-156		9.40	38
Bromodichloromethane	5.00	U	5.38	5.70	108	114	40	10.0-143		5.78	37
Bromoform	5.00	U	3.55	3.87	71.0	77.4	40	10.0-146		8.63	36
Bromomethane	5.00	U	5.94	6.28	119	126	40	10.0-149		5.56	38
n-Butylbenzene	5.00	U	5.09	5.49	102	110	40	10.0-160		7.56	40
sec-Butylbenzene	5.00	U	5.84	6.30	117	126	40	10.0-159		7.58	39
tert-Butylbenzene	5.00	U	5.83	6.15	117	123	40	10.0-156		5.34	39



## L1171021-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171021-01 12/17/19 20:44 • (MS) R3483576-3 12/17/19 21:03 • (MSD) R3483576-4 12/17/19 21:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Carbon tetrachloride	5.00	U	6.31	6.67	126	133	40	10.0-145			5.55	37
Chlorobenzene	5.00	U	5.54	5.98	111	120	40	10.0-152			7.64	39
Chlorodibromomethane	5.00	U	5.24	5.66	105	113	40	10.0-146			7.71	37
Chloroethane	5.00	U	6.88	6.87	138	137	40	10.0-146			0.145	40
Chloroform	5.00	U	4.95	4.99	99.0	99.8	40	10.0-146			0.805	37
Chloromethane	5.00	U	6.44	6.56	129	131	40	10.0-159			1.85	37
2-Chlorotoluene	5.00	U	5.63	6.29	113	126	40	10.0-159			11.1	38
4-Chlorotoluene	5.00	U	5.85	6.26	117	125	40	10.0-155			6.77	39
1,2-Dibromo-3-Chloropropane	5.00	U	5.99	6.08	120	122	40	10.0-151			1.49	39
1,2-Dibromoethane	5.00	U	5.23	5.44	105	109	40	10.0-148			3.94	34
Dibromomethane	5.00	U	4.69	5.16	93.8	103	40	10.0-147			9.54	35
1,2-Dichlorobenzene	5.00	U	5.26	5.63	105	113	40	10.0-155			6.80	37
1,3-Dichlorobenzene	5.00	U	5.59	6.15	112	123	40	10.0-153			9.54	38
1,4-Dichlorobenzene	5.00	U	4.67	5.19	93.4	104	40	10.0-151			10.5	38
Dichlorodifluoromethane	5.00	U	6.71	6.87	134	137	40	10.0-160			2.36	35
1,1-Dichloroethane	5.00	U	4.98	5.55	99.6	111	40	10.0-147			10.8	37
1,2-Dichloroethane	5.00	U	5.79	6.13	116	123	40	10.0-148			5.70	35
1,1-Dichloroethene	5.00	U	5.57	6.01	111	120	40	10.0-155			7.60	37
cis-1,2-Dichloroethene	5.00	U	5.48	5.85	110	117	40	10.0-149			6.53	37
trans-1,2-Dichloroethene	5.00	U	4.81	5.24	96.2	105	40	10.0-150			8.56	37
1,2-Dichloropropane	5.00	U	5.47	5.86	109	117	40	10.0-148			6.88	37
1,1-Dichloropropene	5.00	U	5.46	5.82	109	116	40	10.0-153			6.38	35
1,3-Dichloropropane	5.00	U	5.49	5.70	110	114	40	10.0-154			3.75	35
cis-1,3-Dichloropropene	5.00	U	5.61	5.85	112	117	40	10.0-151			4.19	37
trans-1,3-Dichloropropene	5.00	U	6.03	6.26	121	125	40	10.0-148			3.74	37
2,2-Dichloropropane	5.00	U	4.59	4.37	91.8	87.4	40	10.0-138			4.91	36
Di-isopropyl ether	5.00	U	4.69	5.44	93.8	109	40	10.0-147			14.8	36
Ethylbenzene	5.00	0.0620	5.78	6.05	114	120	40	10.0-160			4.56	38
Hexachloro-1,3-butadiene	5.00	U	4.31	4.60	86.2	92.0	40	10.0-160			6.51	40
Isopropylbenzene	5.00	U	4.53	4.91	90.6	98.2	40	10.0-155			8.05	38
p-Isopropyltoluene	5.00	U	5.34	5.63	107	113	40	10.0-160			5.29	40
2-Butanone (MEK)	25.0	0.717	35.7	32.6	140	128	40	10.0-160			9.08	40
Methylene Chloride	5.00	U	5.21	5.78	104	116	40	10.0-141			10.4	37
4-Methyl-2-pentanone (MIBK)	25.0	U	29.8	32.1	119	128	40	10.0-160			7.43	35
Methyl tert-butyl ether	5.00	0.0140	4.60	5.38	91.7	107	40	11.0-147			15.6	35
Naphthalene	5.00	1.18	9.12	9.20	159	160	40	10.0-160			0.873	36
n-Propylbenzene	5.00	U	5.59	6.06	112	121	40	10.0-158			8.07	38
Styrene	5.00	U	5.74	6.08	115	122	40	10.0-160			5.75	40
1,1,2-Tetrachloroethane	5.00	U	4.21	4.42	84.2	88.4	40	10.0-149			4.87	39
1,1,2,2-Tetrachloroethane	5.00	U	5.59	5.76	112	115	40	10.0-160			3.00	35

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



L1170985-01,02,03,04,05,06,07,08,09,10

## L1171021-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171021-01 12/17/19 20:44 • (MS) R3483576-3 12/17/19 21:03 • (MSD) R3483576-4 12/17/19 21:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Tetrachloroethene	5.00	0.0800	4.66	5.14	91.6	101	40	10.0-156			9.80	39
Toluene	5.00	7.64	29.7	29.6	441	439	40	10.0-156	J5	J5	0.337	38
1,1,2-Trichlorotrifluoroethane	5.00	U	5.30	5.74	106	115	40	10.0-160			7.97	36
1,2,3-Trichlorobenzene	5.00	U	4.24	4.39	84.8	87.8	40	10.0-160			3.48	40
1,2,4-Trichlorobenzene	5.00	U	4.51	4.54	90.2	90.8	40	10.0-160			0.663	40
1,1,1-Trichloroethane	5.00	U	5.58	6.01	112	120	40	10.0-144			7.42	35
1,1,2-Trichloroethane	5.00	U	5.12	5.31	102	106	40	10.0-160			3.64	35
Trichloroethene	5.00	U	5.55	5.90	111	118	40	10.0-156			6.11	38
Trichlorofluoromethane	5.00	U	6.54	6.87	131	137	40	10.0-160			4.92	40
1,2,3-Trichloropropane	5.00	U	6.76	6.66	135	133	40	10.0-156			1.49	35
1,2,3-Trimethylbenzene	5.00	0.0580	5.79	6.38	115	126	40	10.0-160			9.70	36
1,2,4-Trimethylbenzene	5.00	0.0880	6.05	6.56	119	129	40	10.0-160			8.09	36
1,3,5-Trimethylbenzene	5.00	U	6.03	6.42	121	128	40	10.0-160			6.27	38
Vinyl chloride	5.00	U	5.62	5.58	112	112	40	10.0-160			0.714	37
Xylenes, Total	15.0	0.452	16.8	18.0	109	117	40	10.0-160			6.90	38
(S) Toluene-d8				98.3	96.9			75.0-131				
(S) 4-Bromofluorobenzene				97.2	95.9			67.0-138				
(S) 1,2-Dichloroethane-d4				103	97.4			70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



L1170985-01,02,03,04,05,06,07,08,09,10

## Method Blank (MB)

(MB) R3484589-1 12/20/19 11:12

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
TPH C6 - C12	U		15.0	50.0
TPH C12 - C28	U		15.0	50.0
TPH C28 - C35	U		15.0	50.0
TPH C6 - C35	U		15.0	50.0
(S) o-Terphenyl	100		70.0-130	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3484589-2 12/20/19 11:25 • (LCSD) R3484589-3 12/20/19 11:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
TPH C6 - C12	250	240	241	96.0	96.4	75.0-125			0.416	20
TPH C12 - C28	250	220	222	88.0	88.8	75.0-125			0.905	20
TPH C6 - C35	500	460	463	92.0	92.6	75.0-125			0.650	20
(S) o-Terphenyl				106	104	70.0-130				

<sup>10</sup>Sc

## L1172058-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172058-02 12/21/19 11:55 • (MS) R3484876-1 12/21/19 12:09 • (MSD) R3484876-2 12/21/19 12:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
TPH C6 - C12	304	U	304	302	100	99.6	1	75.0-125			0.810	20
TPH C12 - C28	304	27.1	309	298	92.7	89.4	1	75.0-125			3.64	20
TPH C6 - C35	610	77.8	613	600	87.8	86.0	1	75.0-125			2.22	20
(S) o-Terphenyl					114	118		70.0-130				



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].	<sup>1</sup> Cp
MDL	Method Detection Limit.	<sup>2</sup> Tc
MQL (dry)	Method Quantitation Limit.	<sup>3</sup> Ss
MQL	Method Quantitation Limit.	<sup>4</sup> Cn
RDL	Reported Detection Limit.	<sup>5</sup> Tr
Rec.	Recovery.	<sup>6</sup> Sr
RPD	Relative Percent Difference.	<sup>7</sup> Qc
SDG	Sample Delivery Group.	<sup>8</sup> Gl
SDL	Sample Detection Limit.	<sup>9</sup> Al
SDL (dry)	Sample Detection Limit.	<sup>10</sup> Sc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	
U	Not detected at the Sample Detection Limit.	
Unadj. MQL	Unadjusted Method Quantitation Limit.	
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

- \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
- \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>1,6</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>1,4</sup>	2006
Texas	T104704245-18-15
Texas <sup>5</sup>	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

## Third Party Federal Accreditations

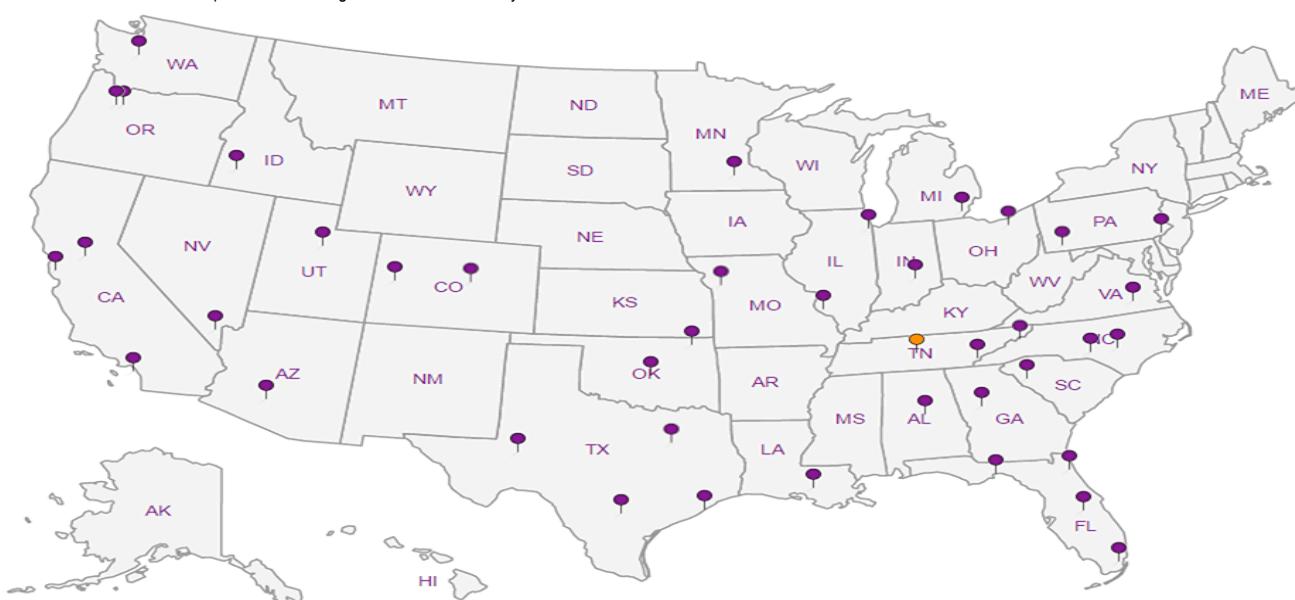
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

<p><b>Terracon - Austin, TX</b></p> <p>5307 Industrial Oaks, Suite 160 Austin, TX 78735</p> <p>Report to: <b>Kevin Denson</b></p> <p>Project Description: 6909 Ryan Lane</p>			Billing Information:			Pres Chk	Analysis / Container / Preservative						Chain of Custody	Page ___ of ___		
			<p>Accounts Payable 5307 Industrial Oaks, Suite 160 Austin, TX 78735</p> <p>Email To: kevin.denson@terracon.com; brian.mann@terracon.com;</p> <p>Please Circle: PT MT CT ET</p>													
<p>City/State Collected: <i>Austin TX</i></p> <p>Phone: 512-442-1122 Fax: 512-442-1181</p> <p>Client Project # 96197913</p> <p>Lab Project # TERRATX-96197913</p>												12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	 			
<p>Collected by (print): <i>Lady Pfd Rth</i></p> <p>Collected by (signature): <i>[Signature]</i></p> <p>Immediately Packed on Ice N <u>Y</u> <u>1</u></p>			<p>Site/Facility ID #</p> <p>Rush? (Lab MUST Be Notified)</p> <p>Same Day <input type="checkbox"/> Five Day <input checked="" type="checkbox"/></p> <p>Next Day <input type="checkbox"/> 5 Day (Rad Only) <input checked="" type="checkbox"/></p> <p>Two Day <input type="checkbox"/> 10 Day (Rad Only) <input checked="" type="checkbox"/></p> <p>Three Day <input type="checkbox"/></p> <p>P.O. #</p> <p>Date Results Needed <i>Normal</i></p>			No. of Cntrs							SDG # <i>L1170985</i>	Ta: <i>J20C</i>		
													Acctnum: TERRATX	Template: T159467		
												Prelogin: P741813	PM: 526 - Chris McCord			
												PB: <i>C 11-20-19</i>	Shipped Via: FedEx Ground			
												Remarks	Sample # (lab only)			
MW-1 (4-5')	G	SS	12/12/19	1045	4	X	X	X							-c1	
MW-1 (20-21')		SS		1100	4	X	X	X							-c2	
MW-2 (4-5')		SS		1145	4	X	X	X							-c3	
MW-2 (4-5')		SS		1200	4	X	X	X							-c4	
MW-3 (5-6')		SS		1400	4	X	X	X							-c5	
MW-3 (22-23')		SS		1415	4	X	X	X							-c6	
MW-4 (4-5')		SS		1500	4	X	X	X							-c7	
MW-4 (18-19)		SS		1315	4	X	X	X							-c8	
MW-5 (4-5')		SS		1630	4	X	X	X							-c9	
MW-5 (14-15)		SS		1645	4	X	X	X							-c10	
<p>* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____</p>			<p>Remarks: PAHs pending TPH results.</p>						pH	Temp	<p>Sample Receipt Checklist:</p> <p>COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>If Applicable</p> <p>VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p> <p>RAD Screen &lt;0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p>					
									Flow	Other						
<p>Samples returned via: UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/></p>			<p>Tracking # <i>1275 8607 5018</i></p>													
<p>Relinquished by: (Signature) <i>[Signature]</i></p>			Date: <i>12/13/19</i>	Time: <i>0930</i>	<p>Received by: (Signature)</p>			<p>Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No HCl / MeOH TBR</p>								
<p>Relinquished by: (Signature) <i>[Signature]</i></p>			Date: _____	Time: _____	<p>Received by: (Signature)</p>			<p>Temp: <i>14±0.14.33</i> °C Bottles Received: <i>40+1TB</i></p>			<p>If preservation required by Login: Date/Time</p>					
<p>Relinquished by: (Signature) <i>[Signature]</i></p>			Date: _____	Time: _____	<p>Received for lab by: (Signature) <i>Bonnie Bonker</i></p>			Date: <i>12/14/19</i>	Time: <i>0900</i>				<p>Condition: <input checked="" type="checkbox"/> NCF <input type="checkbox"/> OK</p>			

Method: TX1005  
Laboratory: Pace Analytical National  
Date: 11/11/2019  
File: 1111\_25

Instrument: SVGC25  
Matrix: soil

**DCS Confirmation**

Analyte	Result (mg/kg)	Conc/TV	MDL (mg/kg)	% Rec
TPH C12-C28	27.600	25	15.00	110%
TPH C6-C12	24.900	25	15.00	100%

**LOD Multi-component V1.0 9/14/11**

Method: 6020 Soil  
 Laboratory: Pace National  
 Date: 11/22/2019  
 File: 072419ICPMS8

Instrument: ICPMS8

**DCS Study**

Analyte	Result (mg/L)	Conc/TV	MDL (ppm)	% Rec	LOD Range TV/MDL	LOD Criteria 1-4 (P)	ESC Criteria 20-200% Rec
Arsenic	0.237	0.25	0.1250	95%	2.0	P	P
Barium	0.545	0.5	0.1600	109%	3.1	P	P
Cadmium	0.232	0.25	0.0800	93%	3.1	P	P
Chromium	0.471	0.5	0.2700	94%	1.9	P	P
Lead	0.218	0.25	0.1200	87%	2.1	P	P
Selenium	0.306	0.25	0.1900	122%	1.3	P	P
Silver	0.246	0.25	0.1550	98%	1.6	P	P

**LOD Multi-component V1.0 9/14/11**

Method: 7471A  
 Laboratory: Pace National  
 Date: 11/22/2019  
 File: 080719CVAA5 S

Instrument: CVAA6

**DCS Study**

Analyte	Result (mg/L)	Conc/TV	MDL (ppm)	% Rec	LOD Range TV/MDL	LOD Criteria 1-4 (P)	ESC Criteria 20-200% Rec
Mercury soil	0.015000	0.015000	0.002800	100%	5.4		P

Method: 8260B  
Laboratory: Pace Analytical - National  
Date: 11/14/2019  
DCS Confirmation

Instrument: VOCMS36  
Matrix: soil

Analyte	Calculated Result (ppb)	LOD TV/Conc (ppb)	MDL (ppb)	% Rec
1,1,1-TRICHLOROETHANE	0.0360111	0.04	0.011	90%
1,1,2-TRICHLOROTRIFLUOROETHANE	0.0768417	0.04	0.027	192%
1,1-DICHLOROETHANE	0.0427528	0.04	0.023	107%
1,1-DICHLOROETHENE	0.0259862	0.04	0.020	65%
1,1-Dichloropropene	0.0555801	0.04	0.028	139%
1,2-DICHLOROETHANE	0.0431525	0.04	0.019	108%
2,2,4-TRIMETHYLPENTANE	0.0540592	0.04	0.015	135%
2,2-Dichloropropane	0.0225652	0.04	0.032	56%
2-BUTANONE (MEK)	0.2165769	0.2	0.100	108%
2-CHLOROETHYL VINYL ETHER	0.8387911	0.2	0.073	419%
2-Chlorotoluene	0.0509268	0.04	0.037	127%
ACRYLONITRILE	0.19596	0.2	0.076	98%
BENZENE	0.0466501	0.04	0.016	117%
Bromobenzene	0.0489346	0.04	0.042	122%
BROMODICHLOROMETHANE	0.0403769	0.04	0.032	101%
CHLOROBENZENE	0.0501637	0.04	0.023	125%
CHLOROFORM	0.0696776	0.04	0.017	174%
CIS-1,2-DICHLOROETHENE	0.0492094	0.04	0.028	123%
CIS-1,3-DICHLOROPROPENE	0.1098089	0.04	0.027	275%
CYCLOHEXANE	0.1263106	0.04	0.020	316%
DICHLORODIFLUOROMETHANE	0.0863838	0.04	0.033	216%
DICHLOROFUOROMETHANE	0.0449838	0.04	0.037	112%
DI-ISOPROPYL ETHER	0.0437776	0.04	0.014	109%
ETHYL ETHER	0.066319	0.04	0.017	166%
ETHYL TERT-BUTYL ETHER	0.0422178	0.04	0.012	106%
ETHYLBENZENE	0.0421341	0.04	0.021	105%
Isopropylbenzene	0.0471716	0.04	0.035	118%
M&P-XYLENE	0.1064145	0.08	0.060	133%
METHYL ACETATE	0.1834362	0.2	0.084	92%
METHYL TERT-BUTYL ETHER	0.0433568	0.04	0.012	108%
O-XYLENE	0.0292962	0.04	0.040	73%
TRICHLOROETHENE	0.0399472	0.04	0.016	100%
TRICHLOROFUOROMETHANE	0.1003515	0.04	0.020	251%
VINYL ACETATE	0.4110383	0.2	0.141	206%
VINYL CHLORIDE	0.0423115	0.04	0.027	106%
1,1,1,2-TETRACHLOROETHANE	0.0684793	0.1	0.020	68%
1,1,2,2-TETRACHLOROETHANE	0.0943139	0.1	0.016	94%
1,1,2-TRICHLOROETHANE	0.0670914	0.1	0.035	67%
1,2,3-Trichlorobenzene	0.0695735	0.1	0.025	70%
1,2,3-TRIMETHYLBENZENE	0.109205	0.1	0.046	109%
1,2,4-Trimethylbenzene	0.1013674	0.1	0.046	101%

1,2-DIBROMOETHANE	0.0963041	0.1	0.021	96%
1,2-DICHLOROBENZENE	0.1076973	0.1	0.058	108%
1,2-DICHLOROPROPANE	0.0567952	0.1	0.051	57%
1,3,5-Trimethylbenzene	0.1110233	0.1	0.043	111%
1,3-DICHLOROBENZENE	0.1136474	0.1	0.068	114%
1,3-Dichloropropane	0.0905281	0.1	0.070	91%
2-HEXANONE	0.3169941	0.5	0.400	63%
4-Chlorotoluene	0.0965928	0.1	0.045	97%
4-ETHYLtolUENE	0.1125549	0.1	0.043	113%
4-METHYL-2-PENTANONE (MIBK)	0.5193306	0.5	0.400	104%
BROMOCHLOROMETHANE	0.1099463	0.1	0.045	110%
CARBON TETRACHLORIDE	0.0946821	0.1	0.043	95%
CHLORODIBROMOMETHANE	0.0726358	0.1	0.018	73%
CHLOROMETHANE	0.1348142	0.1	0.056	135%
DIBROMOMETHANE	0.1127598	0.1	0.040	113%
DICYCLOPENTADIENE	0.1081924	0.1	0.079	108%
IODOMETHANE	0.5166145	0.5	0.242	103%
METHYL CYCLOHEXANE	0.1095017	0.1	0.041	110%
n-Hexane	0.1545719	0.1	0.043	155%
n-Propylbenzene	0.1181941	0.1	0.047	118%
p-Isopropyltoluene	0.0985874	0.1	0.093	99%
sec-Butylbenzene	0.1090538	0.1	0.101	109%
tert-Butylbenzene	0.1149075	0.1	0.062	115%
TETRACHLOROETHENE	0.0987051	0.1	0.028	99%
TOLUENE	0.1117081	0.1	0.050	112%
TRANS-1,2-DICHLOROETHENE	0.1404335	0.1	0.057	140%
TRANS-1,3-DICHLOROPROPENE	0.0797854	0.1	0.061	80%
ACETONE	2.1759588	1	0.546	218%
ALLYL CHLORIDE	0.7449963	1.25	0.579	60%
STYRENE	0.1517494	0.2	0.109	76%
TERT-AMYL ETHYL ETHER	0.1624492	0.2	0.100	81%
1,2,3-TRICHLOROPROPANE	0.3296957	0.5	0.204	66%
1,2,4-Trichlorobenzene	0.4790355	0.5	0.193	96%
1,2-Dibromo-3-chloropropane	0.343311	0.5	0.204	69%
1,3-BUTADIENE	0.4566337	0.5	0.337	91%
1,4-DICHLOROBENZENE	0.5485648	0.5	0.146	110%
1-Methylnaphthalene	0.3421863	0.5	0.325	68%
2-Methylnaphthalene	0.3699039	0.5	0.304	74%
Bromoform	0.4180866	0.5	0.239	84%
BROMOMETHANE	0.5518132	0.5	0.148	110%
CARBON DISULFIDE	0.5078864	0.5	0.162	102%
HEXACHLORO-1,3-BUTADIENE	0.600536	0.5	0.507	120%
METHYLENE CHLORIDE	0.6573069	0.5	0.266	131%
Naphthalene	0.4379034	0.5	0.125	88%
n-Butylbenzene	0.4920121	0.5	0.154	98%
PROPENE	0.4326199	0.5	0.8373	87%
TERT-AMYL METHYL ETHER	0.490819	0.5	0.252	98%

# ANALYTICAL REPORT

January 06, 2020

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Tr

<sup>6</sup>Sr

<sup>7</sup>Qc

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Terracon - Austin, TX

Sample Delivery Group: L1174848  
Samples Received: 12/14/2019  
Project Number: 96197913  
Description: 6909 Ryan Lane

Report To: Kevin Denson  
5307 Industrial Oaks, Suite 160  
Austin, TX 78735

Entire Report Reviewed By:



Chris McCord  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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ONE LAB. NATIONWIDE.



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<b>Cn: Case Narrative</b>	<b>4</b>	 <sup>4</sup> <b>Cn</b>
<b>Tr: TRRP Summary</b>	<b>5</b>	 <sup>5</sup> <b>Tr</b>
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MW-4(4-5) L1174848-01	9	
MW-5(4-5) L1174848-02	10	
<b>Qc: Quality Control Summary</b>	<b>11</b>	 <sup>7</sup> <b>Qc</b>
Metals (ICP) by Method 6010B	11	
<b>Gl: Glossary of Terms</b>	<b>12</b>	 <sup>8</sup> <b>Gl</b>
<b>Al: Accreditations &amp; Locations</b>	<b>13</b>	 <sup>9</sup> <b>Al</b>
<b>Sc: Sample Chain of Custody</b>	<b>14</b>	 <sup>10</sup> <b>Sc</b>

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-4(4-5) L1174848-01 GW

Collected by  
CPP  
12/12/19 15:00  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1404460	1	12/31/19 09:07	12/31/19 09:07	BAA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1405004	1	01/02/20 19:40	01/03/20 12:03	TRB	Mt. Juliet, TN

MW-5(4-5) L1174848-02 GW

Collected by  
CPP  
12/12/19 16:30  
Received date/time  
12/14/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1404460	1	12/31/19 09:07	12/31/19 09:07	BAA	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1405004	1	01/02/20 19:40	01/03/20 12:06	TRB	Mt. Juliet, TN

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

- a. Calculated recovery (%R), and
- b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

- a. LCS spiking amounts,
- b. Calculated %R for each analyte, and
- c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a. Samples associated with the MS/MSD clearly identified,
- b. MS/MSD spiking amounts,
- c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d. Calculated %Rs and relative percent differences (RPDs), and
- e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

- a. The amount of analyte measured in the duplicate,
- b. The calculated RPD, and
- c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Chris McCord  
Project Manager

## Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National			LRC Date: 01/06/2020 16:10				
Project Name: 6909 Ryan Lane			Laboratory Job Number: L1174848-01 and 02				
Reviewer Name: Chris McCord			Prep Batch Number(s): WG1405004 and WG1404460				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?		X			
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?		X			
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?		X			
		If required for the project, are TICs reported?		X			
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 01/06/2020 16:10					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1174848-01 and 02					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1405004 and WG1404460					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)			X		
		Were response factors and/or relative response factors for each analyte within QC limits?					
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning			X		
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Laboratory Name: Pace Analytical National	LRC Date: 01/06/2020 16:10
Project Name: 6909 Ryan Lane	Laboratory Job Number: L1174848-01 and 02
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1405004 and WG1404460
ER # <sup>1</sup>	Description
The Exception Report intentionally left blank, there are no exceptions applied to this SDG.	
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).	



## Preparation by Method 1312

Analyte	Result	<u>Qualifier</u>	Prep date / time	<u>Batch</u>	<sup>1</sup> Cp
SPLP Extraction	-		12/31/2019 9:07:33 AM	WG1404460	<sup>2</sup> Tc
Fluid	2		12/31/2019 9:07:33 AM	WG1404460	<sup>3</sup> Ss
Final pH	7.28		12/31/2019 9:07:33 AM	WG1404460	<sup>4</sup> Cn

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	<u>Batch</u>	<sup>5</sup> Tr
	mg/l		mg/l	mg/l	mg/l				<sup>6</sup> Sr
Arsenic	U		0.00650	0.0100	0.0100	1	01/03/2020 12:03	WG1405004	<sup>7</sup> Qc

MW-5(4-5)

Collected date/time: 12/12/19 16:30

## SAMPLE RESULTS - 02

L1174848

ONE LAB. NATIONWIDE.



## Preparation by Method 1312

Analyte	Result	<u>Qualifier</u>	Prep date / time	<u>Batch</u>	<sup>1</sup> Cp
SPLP Extraction	-		12/31/2019 9:07:33 AM	WG1404460	<sup>2</sup> Tc
Fluid	2		12/31/2019 9:07:33 AM	WG1404460	<sup>3</sup> Ss
Final pH	8.03		12/31/2019 9:07:33 AM	WG1404460	<sup>4</sup> Cn

## Metals (ICP) by Method 6010B

Analyte	Result	<u>Qualifier</u>	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	<u>Batch</u>	<sup>5</sup> Tr
	mg/l		mg/l	mg/l	mg/l				<sup>6</sup> Sr
Lead	0.125		0.00190	0.00500	0.00500	1	01/03/2020 12:06	WG1405004	<sup>7</sup> Qc



## Method Blank (MB)

(MB) R3487899-1 01/03/20 11:45

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00650	0.0100
Lead	U		0.00190	0.00500

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3487899-2 01/03/20 11:48 • (LCSD) R3487899-3 01/03/20 11:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Arsenic	1.00	0.967	0.953	96.7	95.3	80.0-120			1.41	20
Lead	1.00	0.989	0.976	98.9	97.6	80.0-120			1.40	20

## L1174864-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1174864-01 01/03/20 11:53 • (MS) R3487899-5 01/03/20 11:58 • (MSD) R3487899-6 01/03/20 12:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Arsenic	1.00	U	0.960	0.966	96.0	96.6	1	75.0-125			0.613	20
Lead	1.00	0.00214	0.976	0.980	97.4	97.8	1	75.0-125			0.396	20



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
MQL	Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
SDL	Sample Detection Limit.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Unadj. MQL	Unadjusted Method Quantitation Limit.	<sup>9</sup> Al
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>10</sup> Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.	



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

- \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
- \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>1,6</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>1,4</sup>	2006
Texas	T104704245-18-15
Texas <sup>5</sup>	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

## Third Party Federal Accreditations

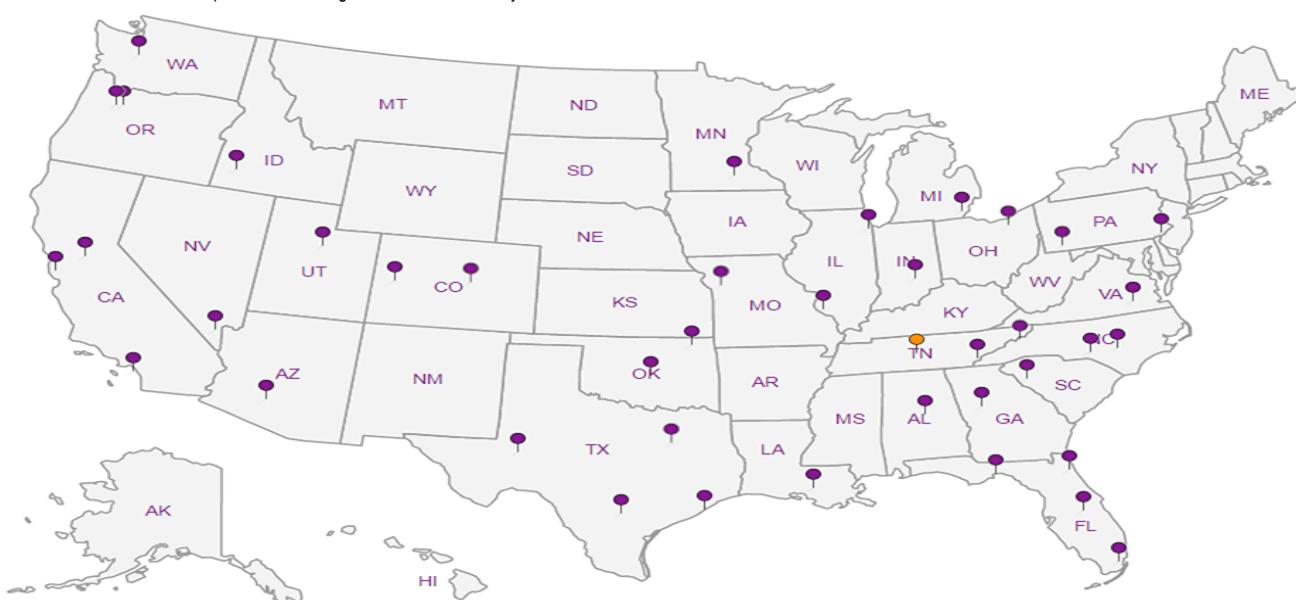
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

Terracon - Austin, TX  5307 Industrial Oaks, Suite 160 Austin, TX 78735		Billing Information:  Accounts Payable 5307 Industrial Oaks, Suite 160 Austin, TX 78735		Pres Chk	Analysis / Container / Preservative						Chain of Custody	Page ____ of ____			
Report to: Kevin Denson		Email To: kevin.denson@terracon.com; brian.mann@terracon.com;									Pace Analytical® National Center for Testing & Innovation				
Project Description: 6909 Ryan Lane		City/State Collected: Austin TX		Please Circle: PT MT CT ET							12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859				
Phone: 512-442-1122 Fax: 512-442-1181		Client Project # 96197913		Lab Project # TERRATX-96197913							SDG # 61170985 NV J200 12/17/19 Ta L11748V8 12/30/19				
Collected by (print): <i>Lobby Pfaul</i>		Site/Facility ID #		P.O. #							Acctnum: TERRATX Template: T159467 Prelogin: P741813 PM: 526 - Chris McCord PB: LC 11-20-19 Shipped Via: FedEx Ground				
Collected by (signature): <i>[Signature]</i>		Rush? (Lab MUST Be Notified)  Same Day    Five Day Next Day    5 Day (Rad Only) Two Day    10 Day (Rad Only) Three Day		Quote #	Date Results Needed <i>Normal</i>	No. of Cntrs							Remarks	Sample # (lab only)	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		M6020RCRA8 8ozClr-NoPtes	TPHTX 40mlTW/SyringeNoPres	V8260 40mlAmB/MeOHSm/Syr						
MW-1 (4-5')	G	SS		12/12/19	1045	4	X	X	X						
MW-1 (20-21)		SS			1108	4	X	X	X						
MW-2 (4-5')		SS			1145	4	X	X	X						
MW-2 (4-5')		SS			1200	4	X	X	X						
MW-3 (5-6)		SS			1400	4	X	X	X						
MW-3 (22-23)		SS			1415	4	X	X	X						
MW-4 (4-5')		SS			1500	4	X	X	X						
MW-4 (18-19)		SS			1515	4	X	X	X						
MW-5 (4-5')		SS			1630	4	X	X	X						
MW-5 (14-15)		SS			1645	4	X	X	X						
Remarks: PAHs pending TPH results.															
Samples returned via: UPS    FedEx    Courier				Tracking # 1275 8607 5018						pH	Temp			Sample Receipt Checklist	
										Flow	Other			COC Seal Present/Intact: <input checked="" type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> N <small>If Applicable</small> VOA Zero Headspace: <input checked="" type="checkbox"/> Y N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y N	
Relinquished by : (Signature)		Date: 12/13/19	Time: 0930	Received by: (Signature)			Trip Blank Received: <input checked="" type="checkbox"/> Yes No HCl / MeOH IBR			If preservation required by Login: Date/Time					
Relinquished by : (Signature)		Date:	Time:	Received by: (Signature)			Temp: °C Bottles Received: 44±0.14/23 40+1TB								
Relinquished by : (Signature)		Date:	Time:	Received for lab by: (Signature)			Date: 12/14/19 Time: 0900			Hold:		Condition: NCF <input checked="" type="checkbox"/> OK			

Andy Vann

**From:** Chris McCord  
**Sent:** Monday, December 30, 2019 3:54 PM  
**To:** Project Service; Sample Storage  
**Subject:** L1170985 \*TERRATX\* relog

Please relog L1170985-07 for SPLP ASICP and L1170985-09 for SPLP PBICP. Log as R5 due 1/7.

Thanks,  
Christopher McCord

*Project Manager*

Pace Analytical National Center for Testing & Innovation  
12065 Lebanon Road | Mt. Juliet, TN 37122  
615.773.3281 | Cell 615.504.3183  
cmccord@pacenational.com|pacenational.com

***ESC Lab Sciences is now Pace Analytical National Center for Testing & Innovation! Please make note of my new email address and website.***

**From:** Mann, Brian [mailto:Brian.Mann@terracon.com]

**Sent:** Monday, December 30, 2019 2:52 PM

**To:** Chris McCord

**Cc:** Reeves, Morgan E

**Subject:** RE: Pace National Level II Report & EDD for 96197913 6909 Ryan Lane L1170985

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Chris,

Please run the following samples for:

**SPLP Arsenic**  
**MW-4(4-5)**  
Collected date/time: 12/12/19 15:00

Total Solids by Method 2540 G-2011

**SPLP Lead**  
**MW-5(4-5)**  
Collected date/time: 12/12/19 16:30

Thanks,  
Brian

**SAMPLE RESULTS - 07**  
L1170985

**SAMPLE RESULTS - 09**  
L1170985

# ANALYTICAL REPORT

December 31, 2019

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Tr

<sup>6</sup>Sr

<sup>7</sup>Qc

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Terracon - Austin, TX

Sample Delivery Group: L1172661  
Samples Received: 12/19/2019  
Project Number: 96197913  
Description: 6909 Ryan Lane

Report To: Kevin Denson  
5307 Industrial Oaks, Suite 160  
Austin, TX 78735

Entire Report Reviewed By:



Chris McCord  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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ONE LAB. NATIONWIDE.



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Cn: Case Narrative	4	<sup>4</sup> Cn
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## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



## MW-1 L1172661-01 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1399927	1	12/20/19 10:01	12/20/19 19:29	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1400011	1	12/22/19 11:19	12/23/19 01:57	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1400601	1	12/21/19 02:09	12/21/19 02:09	JCP	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1401253	1	12/23/19 19:38	12/24/19 21:58	JDG	Mt. Juliet, TN

## MW-2 L1172661-02 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1399927	1	12/20/19 10:01	12/20/19 19:31	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1400011	1	12/22/19 11:19	12/23/19 02:00	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1400601	1	12/21/19 02:28	12/21/19 02:28	JCP	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1401253	1	12/23/19 19:38	12/24/19 22:12	JDG	Mt. Juliet, TN

## MW-3 L1172661-03 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1399927	1	12/20/19 10:01	12/20/19 19:33	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1400011	1	12/22/19 11:19	12/23/19 02:04	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1400765	1	12/21/19 14:51	12/21/19 14:51	BMB	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1401253	1	12/23/19 19:38	12/24/19 22:26	JDG	Mt. Juliet, TN

## MW-4 L1172661-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1399927	1	12/20/19 10:01	12/20/19 19:35	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1400011	1	12/22/19 11:19	12/23/19 02:15	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1400765	1	12/21/19 15:12	12/21/19 15:12	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1401067	200	12/22/19 18:10	12/22/19 18:10	ACG	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1401253	1	12/23/19 19:38	12/24/19 22:43	JDG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1402952	1	12/27/19 15:09	12/28/19 02:00	AAT	Mt. Juliet, TN

## MW-5 L1172661-05 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1399927	1	12/20/19 10:01	12/20/19 19:41	TCT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1400011	1	12/22/19 11:19	12/23/19 02:19	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1400765	1	12/21/19 15:34	12/21/19 15:34	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1401067	1	12/22/19 18:30	12/22/19 18:30	ACG	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1401253	1	12/23/19 19:40	12/24/19 22:56	JDG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

- a. Calculated recovery (%R), and
- b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

- a. LCS spiking amounts,
- b. Calculated %R for each analyte, and
- c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a. Samples associated with the MS/MSD clearly identified,
- b. MS/MSD spiking amounts,
- c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d. Calculated %Rs and relative percent differences (RPDs), and
- e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

- a. The amount of analyte measured in the duplicate,
- b. The calculated RPD, and
- c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Chris McCord  
Project Manager

## Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 12/31/2019 15:18					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1172661-01, 02, 03, 04 and 05					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1399927, WG1400765, WG1401067, WG1400011, WG1400601, WG1401253 and WG1402952					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?		X			
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?		X			
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?		X			
		If required for the project, are TICs reported?		X			
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 12/31/2019 15:18					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1172661-01, 02, 03, 04 and 05					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1399927, WG1400765, WG1401067, WG1400011, WG1400601, WG1401253 and WG1402952					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?				X	
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X	
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Laboratory Name: Pace Analytical National	LRC Date: 12/31/2019 15:18
Project Name: 6909 Ryan Lane	Laboratory Job Number: L1172661-01, 02, 03, 04 and 05
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1399927, WG1400765, WG1401067, WG1400011, WG1400601, WG1401253 and WG1402952

ER # <sup>1</sup>	Description
1	8270C-SIM WG1402952 L1172661-04: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
2	8260B WG1400601 1,2-Dibromo-3-Chloropropane, 4-Methyl-2-pentanone (MIBK): Percent Recovery is outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



## Mercury by Method 7470A

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0000490	0.000200	0.000200	1	12/20/2019 19:29	<a href="#">WG1399927</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00292		0.000250	0.00200	0.00200	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Barium	0.135		0.000360	0.00500	0.00500	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Cadmium	U		0.000160	0.00100	0.00100	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Chromium	0.00422	B	0.000540	0.00200	0.00200	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Lead	0.00463		0.000240	0.00200	0.00200	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Selenium	0.00175	J	0.000380	0.00200	0.00200	1	12/23/2019 01:57	<a href="#">WG1400011</a>
Silver	U		0.000310	0.00200	0.00200	1	12/23/2019 01:57	<a href="#">WG1400011</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	0.0500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Acrolein	U		0.00887	0.0500	0.0500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Acrylonitrile	U		0.00187	0.0100	0.0100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Benzene	U		0.000331	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Bromobenzene	U		0.000352	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Bromodichloromethane	U		0.000380	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Bromoform	U		0.000469	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Bromomethane	U		0.000866	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
n-Butylbenzene	U		0.000361	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
sec-Butylbenzene	U		0.000365	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
tert-Butylbenzene	U		0.000399	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Carbon tetrachloride	U		0.000379	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Chlorobenzene	U		0.000348	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Chlorodibromomethane	U		0.000327	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Chloroethane	U		0.000453	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Chloroform	U		0.000324	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Chloromethane	U		0.000276	0.00250	0.00250	1	12/21/2019 02:09	<a href="#">WG1400601</a>
2-Chlorotoluene	U		0.000375	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
4-Chlorotoluene	U		0.000351	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2-Dibromo-3-Chloropropane	U	J4	0.00133	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2-Dibromoethane	U		0.000381	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Dibromomethane	U		0.000346	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2-Dichlorobenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,3-Dichlorobenzene	U		0.000220	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,4-Dichlorobenzene	U		0.000274	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Dichlorodifluoromethane	U		0.000551	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1-Dichloroethane	U		0.000259	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2-Dichloroethane	U		0.000361	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1-Dichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
cis-1,2-Dichloroethene	U		0.000260	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
trans-1,2-Dichloroethene	U		0.000396	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2-Dichloropropane	U		0.000306	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1-Dichloropropene	U		0.000352	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,3-Dichloropropane	U		0.000366	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
cis-1,3-Dichloropropene	U		0.000418	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
trans-1,3-Dichloropropene	U		0.000419	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
2,2-Dichloropropane	U		0.000321	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Di-isopropyl ether	U		0.000320	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Ethylbenzene	U		0.000384	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.000256	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Isopropylbenzene	U		0.000326	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
p-Isopropyltoluene	U		0.000350	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
2-Butanone (MEK)	U		0.00393	0.0100	0.0100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Methylene Chloride	U		0.00100	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
4-Methyl-2-pentanone (MIBK)	U	J4	0.00214	0.0100	0.0100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Methyl tert-butyl ether	U		0.000367	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Naphthalene	U		0.00100	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
n-Propylbenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Styrene	U		0.000307	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Tetrachloroethene	U		0.000372	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Toluene	0.000448	J	0.000412	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2,4-Trichlorobenzene	U		0.000355	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Trichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Trichlorofluoromethane	U		0.00120	0.00500	0.00500	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	0.00250	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Vinyl chloride	U		0.000259	0.00100	0.00100	1	12/21/2019 02:09	<a href="#">WG1400601</a>
Xylenes, Total	U		0.00106	0.00300	0.00300	1	12/21/2019 02:09	<a href="#">WG1400601</a>
(S) Toluene-d8	103			80.0-120			12/21/2019 02:09	<a href="#">WG1400601</a>
(S) 4-Bromofluorobenzene	98.2			77.0-126			12/21/2019 02:09	<a href="#">WG1400601</a>
(S) 1,2-Dichloroethane-d4	104			70.0-130			12/21/2019 02:09	<a href="#">WG1400601</a>

## TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	12/24/2019 21:58	<a href="#">WG1401253</a>
TPH C12 - C28	U		0.600	0.900	0.900	1	12/24/2019 21:58	<a href="#">WG1401253</a>
TPH C28 - C35	U		0.600	0.900	0.900	1	12/24/2019 21:58	<a href="#">WG1401253</a>
TPH C6 - C35	U		0.600	0.900	0.900	1	12/24/2019 21:58	<a href="#">WG1401253</a>
(S) o-Terphenyl	106			70.0-130			12/24/2019 21:58	<a href="#">WG1401253</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



## Mercury by Method 7470A

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0000490	0.000200	0.000200	1	12/20/2019 19:31	<a href="#">WG1399927</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000795	J	0.000250	0.00200	0.00200	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Barium	0.0711		0.000360	0.00500	0.00500	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Cadmium	U		0.000160	0.00100	0.00100	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Chromium	0.00138	B J	0.000540	0.00200	0.00200	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Lead	U		0.000240	0.00200	0.00200	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Selenium	0.00211		0.000380	0.00200	0.00200	1	12/23/2019 02:00	<a href="#">WG1400011</a>
Silver	U		0.000310	0.00200	0.00200	1	12/23/2019 02:00	<a href="#">WG1400011</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	0.0500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Acrolein	U		0.00887	0.0500	0.0500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Acrylonitrile	U		0.00187	0.0100	0.0100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Benzene	U		0.000331	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Bromobenzene	U		0.000352	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Bromodichloromethane	U		0.000380	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Bromoform	U		0.000469	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Bromomethane	U		0.000866	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
n-Butylbenzene	U		0.000361	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
sec-Butylbenzene	U		0.000365	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
tert-Butylbenzene	U		0.000399	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Carbon tetrachloride	U		0.000379	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Chlorobenzene	U		0.000348	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Chlorodibromomethane	U		0.000327	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Chloroethane	U		0.000453	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Chloroform	U		0.000324	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Chloromethane	U		0.000276	0.00250	0.00250	1	12/21/2019 02:28	<a href="#">WG1400601</a>
2-Chlorotoluene	U		0.000375	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
4-Chlorotoluene	U		0.000351	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2-Dibromo-3-Chloropropane	U	J4	0.00133	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2-Dibromoethane	U		0.000381	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Dibromomethane	U		0.000346	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2-Dichlorobenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,3-Dichlorobenzene	U		0.000220	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,4-Dichlorobenzene	U		0.000274	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Dichlorodifluoromethane	U		0.000551	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1-Dichloroethane	U		0.000259	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2-Dichloroethane	U		0.000361	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1-Dichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
cis-1,2-Dichloroethene	0.000877	J	0.000260	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
trans-1,2-Dichloroethene	U		0.000396	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2-Dichloropropane	U		0.000306	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1-Dichloropropene	U		0.000352	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,3-Dichloropropane	U		0.000366	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
cis-1,3-Dichloropropene	U		0.000418	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
trans-1,3-Dichloropropene	U		0.000419	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
2,2-Dichloropropane	U		0.000321	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Di-isopropyl ether	U		0.000320	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Ethylbenzene	U		0.000384	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.000256	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Isopropylbenzene	U		0.000326	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
p-Isopropyltoluene	U		0.000350	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
2-Butanone (MEK)	U		0.00393	0.0100	0.0100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Methylene Chloride	U		0.00100	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
4-Methyl-2-pentanone (MIBK)	U	J4	0.00214	0.0100	0.0100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Methyl tert-butyl ether	U		0.000367	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Naphthalene	U		0.00100	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
n-Propylbenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Styrene	U		0.000307	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1,2-Trichlorotrifluoroethane	0.0198		0.000303	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Tetrachloroethene	U		0.000372	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Toluene	U		0.000412	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2,4-Trichlorobenzene	U		0.000355	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Trichloroethene	0.0453		0.000398	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Trichlorofluoromethane	0.00728		0.00120	0.00500	0.00500	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	0.00250	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Vinyl chloride	U		0.000259	0.00100	0.00100	1	12/21/2019 02:28	<a href="#">WG1400601</a>
Xylenes, Total	U		0.00106	0.00300	0.00300	1	12/21/2019 02:28	<a href="#">WG1400601</a>
(S) Toluene-d8	102			80.0-120			12/21/2019 02:28	<a href="#">WG1400601</a>
(S) 4-Bromofluorobenzene	97.2			77.0-126			12/21/2019 02:28	<a href="#">WG1400601</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130			12/21/2019 02:28	<a href="#">WG1400601</a>

## TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	12/24/2019 22:12	<a href="#">WG1401253</a>
TPH C12 - C28	U		0.600	0.900	0.900	1	12/24/2019 22:12	<a href="#">WG1401253</a>
TPH C28 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:12	<a href="#">WG1401253</a>
TPH C6 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:12	<a href="#">WG1401253</a>
(S) o-Terphenyl	110			70.0-130			12/24/2019 22:12	<a href="#">WG1401253</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



## Mercury by Method 7470A

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0000490	0.000200	0.000200	1	12/20/2019 19:33	<a href="#">WG1399927</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00168	J	0.000250	0.00200	0.00200	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Barium	0.0643		0.000360	0.00500	0.00500	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Cadmium	U		0.000160	0.00100	0.00100	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Chromium	U		0.000540	0.00200	0.00200	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Lead	U		0.000240	0.00200	0.00200	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Selenium	0.00247		0.000380	0.00200	0.00200	1	12/23/2019 02:04	<a href="#">WG1400011</a>
Silver	U		0.000310	0.00200	0.00200	1	12/23/2019 02:04	<a href="#">WG1400011</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	0.0500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Acrolein	U		0.00887	0.0500	0.0500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Acrylonitrile	U		0.00187	0.0100	0.0100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Benzene	0.000862	J	0.000331	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Bromobenzene	U		0.000352	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Bromodichloromethane	U		0.000380	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Bromoform	U		0.000469	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Bromomethane	U		0.000866	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
n-Butylbenzene	U		0.000361	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
sec-Butylbenzene	U		0.000365	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
tert-Butylbenzene	U		0.000399	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Carbon tetrachloride	U		0.000379	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Chlorobenzene	U		0.000348	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Chlorodibromomethane	U		0.000327	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Chloroethane	U		0.000453	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Chloroform	U		0.000324	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Chloromethane	U		0.000276	0.00250	0.00250	1	12/21/2019 14:51	<a href="#">WG1400765</a>
2-Chlorotoluene	U		0.000375	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
4-Chlorotoluene	U		0.000351	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2-Dibromoethane	U		0.000381	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Dibromomethane	U		0.000346	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2-Dichlorobenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,3-Dichlorobenzene	U		0.000220	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,4-Dichlorobenzene	U		0.000274	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Dichlorodifluoromethane	U		0.000551	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1-Dichloroethane	U		0.000259	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2-Dichloroethane	U		0.000361	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1-Dichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
cis-1,2-Dichloroethene	U		0.000260	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
trans-1,2-Dichloroethene	U		0.000396	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2-Dichloropropane	U		0.000306	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1-Dichloropropene	U		0.000352	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,3-Dichloropropane	U		0.000366	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
cis-1,3-Dichloropropene	U		0.000418	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
trans-1,3-Dichloropropene	U		0.000419	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
2,2-Dichloropropane	U		0.000321	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Di-isopropyl ether	U		0.000320	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Ethylbenzene	U		0.000384	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.000256	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Isopropylbenzene	U		0.000326	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
p-Isopropyltoluene	U		0.000350	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
2-Butanone (MEK)	U		0.00393	0.0100	0.0100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Methylene Chloride	U		0.00100	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	0.0100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Methyl tert-butyl ether	0.0226		0.000367	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Naphthalene	0.0223		0.00100	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
n-Propylbenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Styrene	U		0.000307	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Tetrachloroethene	U		0.000372	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Toluene	U		0.000412	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2,4-Trichlorobenzene	U		0.000355	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Trichloroethene	0.000771	J	0.000398	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Trichlorofluoromethane	U		0.00120	0.00500	0.00500	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	0.00250	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Vinyl chloride	U		0.000259	0.00100	0.00100	1	12/21/2019 14:51	<a href="#">WG1400765</a>
Xylenes, Total	U		0.00106	0.00300	0.00300	1	12/21/2019 14:51	<a href="#">WG1400765</a>
(S) Toluene-d8	98.7			80.0-120			12/21/2019 14:51	<a href="#">WG1400765</a>
(S) 4-Bromofluorobenzene	89.9			77.0-126			12/21/2019 14:51	<a href="#">WG1400765</a>
(S) 1,2-Dichloroethane-d4	94.3			70.0-130			12/21/2019 14:51	<a href="#">WG1400765</a>

## TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	12/24/2019 22:26	<a href="#">WG1401253</a>
TPH C12 - C28	U		0.600	0.900	0.900	1	12/24/2019 22:26	<a href="#">WG1401253</a>
TPH C28 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:26	<a href="#">WG1401253</a>
TPH C6 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:26	<a href="#">WG1401253</a>
(S) o-Terphenyl	116			70.0-130			12/24/2019 22:26	<a href="#">WG1401253</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



## Mercury by Method 7470A

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0000490	0.000200	0.000200	1	12/20/2019 19:35	<a href="#">WG1399927</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00112	J	0.000250	0.00200	0.00200	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Barium	0.126		0.000360	0.00500	0.00500	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Cadmium	U		0.000160	0.00100	0.00100	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Chromium	U		0.000540	0.00200	0.00200	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Lead	0.000265	J	0.000240	0.00200	0.00200	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Selenium	0.000529	J	0.000380	0.00200	0.00200	1	12/23/2019 02:15	<a href="#">WG1400011</a>
Silver	U		0.000310	0.00200	0.00200	1	12/23/2019 02:15	<a href="#">WG1400011</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	0.0500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Acrolein	U		0.00887	0.0500	0.0500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Acrylonitrile	U		0.00187	0.0100	0.0100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Benzene	0.00533		0.000331	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Bromobenzene	U		0.000352	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Bromodichloromethane	U		0.000380	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Bromoform	U		0.000469	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Bromomethane	U		0.000866	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
n-Butylbenzene	U		0.000361	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
sec-Butylbenzene	U		0.000365	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
tert-Butylbenzene	U		0.000399	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Carbon tetrachloride	U		0.000379	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Chlorobenzene	0.423		0.0696	0.00100	0.200	200	12/22/2019 18:10	<a href="#">WG1401067</a>
Chlorodibromomethane	U		0.000327	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Chloroethane	U		0.000453	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Chloroform	U		0.000324	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Chloromethane	U		0.000276	0.00250	0.00250	1	12/21/2019 15:12	<a href="#">WG1400765</a>
2-Chlorotoluene	U		0.000375	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
4-Chlorotoluene	U		0.000351	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2-Dibromoethane	U		0.000381	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Dibromomethane	U		0.000346	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2-Dichlorobenzene	8.66		0.0698	0.00100	0.200	200	12/22/2019 18:10	<a href="#">WG1401067</a>
1,3-Dichlorobenzene	0.215		0.0440	0.00100	0.200	200	12/22/2019 18:10	<a href="#">WG1401067</a>
1,4-Dichlorobenzene	1.05		0.0548	0.00100	0.200	200	12/22/2019 18:10	<a href="#">WG1401067</a>
Dichlorodifluoromethane	U		0.000551	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1-Dichloroethane	U		0.000259	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2-Dichloroethane	0.00430		0.000361	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1-Dichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
cis-1,2-Dichloroethene	0.00466		0.000260	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
trans-1,2-Dichloroethene	0.000580	J	0.000396	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2-Dichloropropane	U		0.000306	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1-Dichloropropene	U		0.000352	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,3-Dichloropropane	U		0.000366	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
cis-1,3-Dichloropropene	U		0.000418	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
trans-1,3-Dichloropropene	U		0.000419	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
2,2-Dichloropropane	U		0.000321	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Di-isopropyl ether	U		0.000320	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Ethylbenzene	0.000446	J	0.000384	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.000256	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Isopropylbenzene	U		0.000326	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
p-Isopropyltoluene	U		0.000350	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
2-Butanone (MEK)	U		0.00393	0.0100	0.0100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Methylene Chloride	U		0.00100	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	0.0100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Methyl tert-butyl ether	U		0.000367	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Naphthalene	0.00412	<u>J</u>	0.00100	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
n-Propylbenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Styrene	U		0.000307	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Tetrachloroethene	U		0.000372	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Toluene	0.000464	<u>J</u>	0.000412	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2,4-Trichlorobenzene	0.000710	<u>J</u>	0.000355	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Trichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Trichlorofluoromethane	U		0.00120	0.00500	0.00500	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	0.00250	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Vinyl chloride	0.00142		0.000259	0.00100	0.00100	1	12/21/2019 15:12	<a href="#">WG1400765</a>
Xylenes, Total	U		0.00106	0.00300	0.00300	1	12/21/2019 15:12	<a href="#">WG1400765</a>
(S) Toluene-d8	104			80.0-120			12/21/2019 15:12	<a href="#">WG1400765</a>
(S) Toluene-d8	109			80.0-120			12/22/2019 18:10	<a href="#">WG1401067</a>
(S) 4-Bromofluorobenzene	96.3			77.0-126			12/21/2019 15:12	<a href="#">WG1400765</a>
(S) 4-Bromofluorobenzene	102			77.0-126			12/22/2019 18:10	<a href="#">WG1401067</a>
(S) 1,2-Dichloroethane-d4	93.4			70.0-130			12/21/2019 15:12	<a href="#">WG1400765</a>
(S) 1,2-Dichloroethane-d4	95.5			70.0-130			12/22/2019 18:10	<a href="#">WG1401067</a>

## TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
TPH C6 - C12	5.39		0.600	0.900	0.900	1	12/24/2019 22:43	<a href="#">WG1401253</a>
TPH C12 - C28	0.665	<u>J</u>	0.600	0.900	0.900	1	12/24/2019 22:43	<a href="#">WG1401253</a>
TPH C28 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:43	<a href="#">WG1401253</a>
TPH C6 - C35	6.06		0.600	0.900	0.900	1	12/24/2019 22:43	<a href="#">WG1401253</a>
(S) o-Terphenyl	110			70.0-130			12/24/2019 22:43	<a href="#">WG1401253</a>

## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Anthracene	0.0000173	<u>J T8</u>	0.0000140	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Acenaphthene	U	<u>T8</u>	0.0000100	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Acenaphthylene	U	<u>T8</u>	0.0000120	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Benzo(a)anthracene	U	<u>T8</u>	0.00000410	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Benzo(a)pyrene	U	<u>T8</u>	0.00000116	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Benzo(b)fluoranthene	0.00000231	<u>J T8</u>	0.00000212	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Benzo(g,h,i)perylene	U	<u>T8</u>	0.00000227	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Benzo(k)fluoranthene	U	<u>T8</u>	0.00000136	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>
Chrysene	U	<u>T8</u>	0.0000108	0.0000500	0.0000500	1	12/28/2019 02:00	<a href="#">WG1402952</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc



## Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l	mg/l	mg/l				
Dibenz(a,h)anthracene	U	T8	0.00000396	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>1</sup> Cp
Dibenzofuran	0.0000906	T8	0.00000105	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>2</sup> Tc
Fluoranthene	U	T8	0.0000157	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>3</sup> Ss
Fluorene	U	T8	0.00000850	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>4</sup> Cn
Indeno(1,2,3-cd)pyrene	U	T8	0.0000148	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>5</sup> Tr
Naphthalene	0.000452	B T8	0.0000198	0.000250	0.000250	1	12/28/2019 02:00	WG1402952	<sup>6</sup> Sr
Phenanthrene	0.0000110	J T8	0.00000820	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>7</sup> Qc
Pyrene	U	T8	0.0000117	0.0000500	0.0000500	1	12/28/2019 02:00	WG1402952	<sup>8</sup> Gl
(S) Nitrobenzene-d5	80.5			31.0-160			12/28/2019 02:00	WG1402952	<sup>9</sup> Al
(S) 2-Fluorobiphenyl	80.5			48.0-148			12/28/2019 02:00	WG1402952	
(S) p-Terphenyl-d14	87.9			37.0-146			12/28/2019 02:00	WG1402952	<sup>10</sup> Sc



## Mercury by Method 7470A

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.0000490	0.000200	0.000200	1	12/20/2019 19:41	<a href="#">WG1399927</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

## Metals (ICPMS) by Method 6020

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00363		0.000250	0.00200	0.00200	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Barium	0.169		0.000360	0.00500	0.00500	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Cadmium	U		0.000160	0.00100	0.00100	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Chromium	0.000585	B J	0.000540	0.00200	0.00200	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Lead	0.000362	J	0.000240	0.00200	0.00200	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Selenium	0.000402	J	0.000380	0.00200	0.00200	1	12/23/2019 02:19	<a href="#">WG1400011</a>
Silver	U		0.000310	0.00200	0.00200	1	12/23/2019 02:19	<a href="#">WG1400011</a>

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	<u>Qualifier</u>	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	0.0500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Acrolein	U		0.00887	0.0500	0.0500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Acrylonitrile	U		0.00187	0.0100	0.0100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Benzene	U		0.000331	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Bromobenzene	U		0.000352	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Bromodichloromethane	U		0.000380	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Bromoform	U		0.000469	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Bromomethane	U		0.000866	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
n-Butylbenzene	U		0.000361	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
sec-Butylbenzene	U		0.000365	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
tert-Butylbenzene	U		0.000399	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Carbon tetrachloride	U		0.000379	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Chlorobenzene	U		0.000348	0.00100	0.00100	1	12/22/2019 18:30	<a href="#">WG1401067</a>
Chlorodibromomethane	U		0.000327	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Chloroethane	U		0.000453	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Chloroform	U		0.000324	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Chloromethane	U		0.000276	0.00250	0.00250	1	12/21/2019 15:34	<a href="#">WG1400765</a>
2-Chlorotoluene	U		0.000375	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
4-Chlorotoluene	U		0.000351	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2-Dibromoethane	U		0.000381	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Dibromomethane	U		0.000346	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2-Dichlorobenzene	0.00127		0.000349	0.00100	0.00100	1	12/22/2019 18:30	<a href="#">WG1401067</a>
1,3-Dichlorobenzene	U		0.000220	0.00100	0.00100	1	12/22/2019 18:30	<a href="#">WG1401067</a>
1,4-Dichlorobenzene	U		0.000274	0.00100	0.00100	1	12/22/2019 18:30	<a href="#">WG1401067</a>
Dichlorodifluoromethane	U		0.000551	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1-Dichloroethane	U		0.000259	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2-Dichloroethane	U		0.000361	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1-Dichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
cis-1,2-Dichloroethene	U		0.000260	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
trans-1,2-Dichloroethene	U		0.000396	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2-Dichloropropane	U		0.000306	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1-Dichloropropene	U		0.000352	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,3-Dichloropropane	U		0.000366	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
cis-1,3-Dichloropropene	U		0.000418	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
trans-1,3-Dichloropropene	U		0.000419	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
2,2-Dichloropropane	U		0.000321	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Di-isopropyl ether	U		0.000320	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Ethylbenzene	U		0.000384	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>

10 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.000256	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Isopropylbenzene	U		0.000326	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
p-Isopropyltoluene	U		0.000350	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
2-Butanone (MEK)	U		0.00393	0.0100	0.0100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Methylene Chloride	U		0.00100	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	0.0100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Methyl tert-butyl ether	U		0.000367	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Naphthalene	0.00198	J	0.00100	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
n-Propylbenzene	U		0.000349	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Styrene	U		0.000307	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Tetrachloroethene	U		0.000372	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Toluene	U		0.000412	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2,4-Trichlorobenzene	0.000536	J	0.000355	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1,1-Trichloroethane	U		0.000319	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,1,2-Trichloroethane	U		0.000383	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Trichloroethene	U		0.000398	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Trichlorofluoromethane	U		0.00120	0.00500	0.00500	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2,3-Trichloropropane	U		0.000807	0.00250	0.00250	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2,4-Trimethylbenzene	U		0.000373	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,2,3-Trimethylbenzene	U		0.000321	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
1,3,5-Trimethylbenzene	U		0.000387	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Vinyl chloride	U		0.000259	0.00100	0.00100	1	12/21/2019 15:34	<a href="#">WG1400765</a>
Xylenes, Total	U		0.00106	0.00300	0.00300	1	12/21/2019 15:34	<a href="#">WG1400765</a>
(S) Toluene-d8	103			80.0-120			12/21/2019 15:34	<a href="#">WG1400765</a>
(S) Toluene-d8	109			80.0-120			12/22/2019 18:30	<a href="#">WG1401067</a>
(S) 4-Bromofluorobenzene	95.3			77.0-126			12/21/2019 15:34	<a href="#">WG1400765</a>
(S) 4-Bromofluorobenzene	103			77.0-126			12/22/2019 18:30	<a href="#">WG1401067</a>
(S) 1,2-Dichloroethane-d4	91.5			70.0-130			12/21/2019 15:34	<a href="#">WG1400765</a>
(S) 1,2-Dichloroethane-d4	97.4			70.0-130			12/22/2019 18:30	<a href="#">WG1401067</a>

## TPH by TCEQ Method 1005

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		0.600	0.900	0.900	1	12/24/2019 22:56	<a href="#">WG1401253</a>
TPH C12 - C28	U		0.600	0.900	0.900	1	12/24/2019 22:56	<a href="#">WG1401253</a>
TPH C28 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:56	<a href="#">WG1401253</a>
TPH C6 - C35	U		0.600	0.900	0.900	1	12/24/2019 22:56	<a href="#">WG1401253</a>
(S) o-Terphenyl	104			70.0-130			12/24/2019 22:56	<a href="#">WG1401253</a>



L1172661-01,02,03,04,05

## Method Blank (MB)

(MB) R3484710-1 12/20/19 18:48

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.0000490	0.000200

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3484710-2 12/20/19 18:54 • (LCSD) R3484710-3 12/20/19 18:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Mercury	0.00300	0.00292	0.00284	97.3	94.8	80.0-120			2.57	20

## L1172668-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172668-04 12/20/19 18:58 • (MS) R3484710-4 12/20/19 19:00 • (MSD) R3484710-5 12/20/19 19:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury	0.00300	ND	0.00272	0.00253	90.5	84.4	1	75.0-125			7.03	20



## Method Blank (MB)

(MB) R3485147-1 12/22/19 20:01

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000250	0.00200
Barium	U		0.000360	0.00500
Cadmium	U		0.000160	0.00100
Chromium	0.000702	J	0.000540	0.00200
Lead	U		0.000240	0.00200
Selenium	U		0.000380	0.00200
Silver	U		0.000310	0.00200

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3485147-2 12/22/19 20:05 • (LCSD) R3485147-3 12/22/19 20:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Arsenic	0.0500	0.0512	0.0500	102	100	80.0-120			2.28	20
Barium	0.0500	0.0487	0.0455	97.3	91.0	80.0-120			6.72	20
Cadmium	0.0500	0.0509	0.0501	102	100	80.0-120			1.47	20
Chromium	0.0500	0.0525	0.0496	105	99.2	80.0-120			5.60	20
Lead	0.0500	0.0490	0.0484	97.9	96.9	80.0-120			1.07	20
Selenium	0.0500	0.0539	0.0530	108	106	80.0-120			1.72	20
Silver	0.0500	0.0507	0.0490	101	97.9	80.0-120			3.52	20

<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc

## L1172315-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172315-01 12/22/19 20:13 • (MS) R3485147-5 12/22/19 20:20 • (MSD) R3485147-6 12/22/19 20:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Result mg/l	MS Rec. %	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Arsenic	0.0500	0.00277	0.0505	0.0494	95.4	93.2	1	75.0-125			2.20	20
Barium	0.0500	0.00687	0.0548	0.0535	95.8	93.2	1	75.0-125			2.37	20
Cadmium	0.0500	ND	0.0509	0.0522	102	104	1	75.0-125			2.71	20
Lead	0.0500	ND	0.0499	0.0503	99.9	101	1	75.0-125			0.806	20
Selenium	0.0500	ND	0.0545	0.0565	108	112	1	75.0-125			3.61	20
Silver	0.0500	ND	0.0509	0.0503	102	101	1	75.0-125			1.07	20



## L1172315-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1172315-01 12/23/19 14:40 • (MS) R3485397-4 12/23/19 15:23 • (MSD) R3485397-5 12/23/19 15:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
Chromium	0.0500	0.0153	0.0653	0.0655	100	100	1	75.0-125			0.379	20

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Method Blank (MB)

(MB) R3485634-2 12/20/19 23:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Acetone	U		0.0100	0.0500	<sup>1</sup> Cp
Acrolein	U		0.00887	0.0500	<sup>2</sup> Tc
Acrylonitrile	U		0.00187	0.0100	<sup>3</sup> Ss
Benzene	U		0.000331	0.00100	<sup>4</sup> Cn
Bromobenzene	U		0.000352	0.00100	<sup>5</sup> Tr
Bromodichloromethane	U		0.000380	0.00100	<sup>6</sup> Sr
Bromoform	U		0.000469	0.00100	<sup>7</sup> Qc
Bromomethane	U		0.000866	0.00500	<sup>8</sup> Gl
n-Butylbenzene	U		0.000361	0.00100	<sup>9</sup> Al
sec-Butylbenzene	U		0.000365	0.00100	<sup>10</sup> Sc
tert-Butylbenzene	U		0.000399	0.00100	
Carbon tetrachloride	U		0.000379	0.00100	
Chlorobenzene	U		0.000348	0.00100	
Chlorodibromomethane	U		0.000327	0.00100	
Chloroethane	U		0.000453	0.00500	
Chloroform	U		0.000324	0.00500	
Chloromethane	U		0.000276	0.00250	
2-Chlorotoluene	U		0.000375	0.00100	
4-Chlorotoluene	U		0.000351	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	
1,2-Dibromoethane	U		0.000381	0.00100	
Dibromomethane	U		0.000346	0.00100	
1,2-Dichlorobenzene	U		0.000349	0.00100	
1,3-Dichlorobenzene	U		0.000220	0.00100	
1,4-Dichlorobenzene	U		0.000274	0.00100	
Dichlorodifluoromethane	U		0.000551	0.00500	
1,1-Dichloroethane	U		0.000259	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
1,1-Dichloroethene	U		0.000398	0.00100	
cis-1,2-Dichloroethene	U		0.000260	0.00100	
trans-1,2-Dichloroethene	U		0.000396	0.00100	
1,2-Dichloropropane	U		0.000306	0.00100	
1,1-Dichloropropene	U		0.000352	0.00100	
1,3-Dichloropropane	U		0.000366	0.00100	
cis-1,3-Dichloropropene	U		0.000418	0.00100	
trans-1,3-Dichloropropene	U		0.000419	0.00100	
2,2-Dichloropropane	U		0.000321	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	
Hexachloro-1,3-butadiene	U		0.000256	0.00100	



## Method Blank (MB)

(MB) R3485634-2 12/20/19 23:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Isopropylbenzene	U		0.000326	0.00100	<sup>1</sup> Cp
p-Isopropyltoluene	U		0.000350	0.00100	<sup>2</sup> Tc
2-Butanone (MEK)	U		0.00393	0.0100	<sup>3</sup> Ss
Methylene Chloride	U		0.00100	0.00500	<sup>4</sup> Cn
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	<sup>5</sup> Tr
Methyl tert-butyl ether	U		0.000367	0.00100	<sup>6</sup> Sr
Naphthalene	U		0.00100	0.00500	<sup>7</sup> Qc
n-Propylbenzene	U		0.000349	0.00100	<sup>8</sup> Gl
Styrene	U		0.000307	0.00100	<sup>9</sup> Al
1,1,2-Tetrachloroethane	U		0.000385	0.00100	<sup>10</sup> Sc
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	
Tetrachloroethene	U		0.000372	0.00100	
Toluene	U		0.000412	0.00100	
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	
1,2,3-Trichlorobenzene	U		0.000230	0.00100	
1,2,4-Trichlorobenzene	U		0.000355	0.00100	
1,1,1-Trichloroethane	U		0.000319	0.00100	
1,1,2-Trichloroethane	U		0.000383	0.00100	
Trichloroethene	U		0.000398	0.00100	
Trichlorofluoromethane	U		0.00120	0.00500	
1,2,3-Trichloropropane	U		0.000807	0.00250	
1,2,3-Trimethylbenzene	U		0.000321	0.00100	
1,2,4-Trimethylbenzene	U		0.000373	0.00100	
1,3,5-Trimethylbenzene	U		0.000387	0.00100	
Vinyl chloride	U		0.000259	0.00100	
Xylenes, Total	U		0.00106	0.00300	
(S) Toluene-d8	101			80.0-120	
(S) 4-Bromofluorobenzene	97.4			77.0-126	
(S) 1,2-Dichloroethane-d4	103			70.0-130	

## Laboratory Control Sample (LCS)

(LCS) R3485634-1 12/20/19 23:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0140	56.0	19.0-160	
Acrolein	0.0250	0.0227	90.8	10.0-160	
Acrylonitrile	0.0250	0.0152	60.8	55.0-149	
Benzene	0.00500	0.00505	101	70.0-123	



## Laboratory Control Sample (LCS)

(LCS) R3485634-1 12/20/19 23:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromobenzene	0.00500	0.00446	89.2	73.0-121	
Bromodichloromethane	0.00500	0.00457	91.4	75.0-120	
Bromoform	0.00500	0.00401	80.2	68.0-132	
Bromomethane	0.00500	0.000968	19.4	10.0-160	
n-Butylbenzene	0.00500	0.00428	85.6	73.0-125	
sec-Butylbenzene	0.00500	0.00462	92.4	75.0-125	
tert-Butylbenzene	0.00500	0.00452	90.4	76.0-124	
Carbon tetrachloride	0.00500	0.00516	103	68.0-126	
Chlorobenzene	0.00500	0.00508	102	80.0-121	
Chlorodibromomethane	0.00500	0.00435	87.0	77.0-125	
Chloroethane	0.00500	0.00491	98.2	47.0-150	
Chloroform	0.00500	0.00500	100	73.0-120	
Chloromethane	0.00500	0.00392	78.4	41.0-142	
2-Chlorotoluene	0.00500	0.00465	93.0	76.0-123	
4-Chlorotoluene	0.00500	0.00473	94.6	75.0-122	
1,2-Dibromo-3-Chloropropane	0.00500	0.00214	42.8	58.0-134	J4
1,2-Dibromoethane	0.00500	0.00484	96.8	80.0-122	
Dibromomethane	0.00500	0.00521	104	80.0-120	
1,2-Dichlorobenzene	0.00500	0.00479	95.8	79.0-121	
1,3-Dichlorobenzene	0.00500	0.00474	94.8	79.0-120	
1,4-Dichlorobenzene	0.00500	0.00481	96.2	79.0-120	
Dichlorodifluoromethane	0.00500	0.00651	130	51.0-149	
1,1-Dichloroethane	0.00500	0.00526	105	70.0-126	
1,2-Dichloroethane	0.00500	0.00505	101	70.0-128	
1,1-Dichloroethene	0.00500	0.00528	106	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00497	99.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00523	105	73.0-120	
1,2-Dichloropropane	0.00500	0.00508	102	77.0-125	
1,1-Dichloropropene	0.00500	0.00554	111	74.0-126	
1,3-Dichloropropane	0.00500	0.00506	101	80.0-120	
cis-1,3-Dichloropropene	0.00500	0.00462	92.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00465	93.0	78.0-124	
2,2-Dichloropropane	0.00500	0.00522	104	58.0-130	
Di-isopropyl ether	0.00500	0.00475	95.0	58.0-138	
Ethylbenzene	0.00500	0.00530	106	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00392	78.4	54.0-138	
Isopropylbenzene	0.00500	0.00488	97.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00466	93.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0119	47.6	44.0-160	
Methylene Chloride	0.00500	0.00543	109	67.0-120	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Laboratory Control Sample (LCS)

(LCS) R3485634-1 12/20/19 23:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Methyl-2-pentanone (MIBK)	0.0250	0.0168	67.2	68.0-142	J4
Methyl tert-butyl ether	0.00500	0.00479	95.8	68.0-125	
Naphthalene	0.00500	0.00270	54.0	54.0-135	
n-Propylbenzene	0.00500	0.00456	91.2	77.0-124	
Styrene	0.00500	0.00481	96.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00439	87.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00440	88.0	65.0-130	
Tetrachloroethene	0.00500	0.00548	110	72.0-132	
Toluene	0.00500	0.00504	101	79.0-120	
1,1,2-Trichlorotrifluoroethane	0.00500	0.00546	109	69.0-132	
1,2,3-Trichlorobenzene	0.00500	0.00310	62.0	50.0-138	
1,2,4-Trichlorobenzene	0.00500	0.00392	78.4	57.0-137	
1,1,1-Trichloroethane	0.00500	0.00524	105	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00486	97.2	80.0-120	
Trichloroethene	0.00500	0.00509	102	78.0-124	
Trichlorofluoromethane	0.00500	0.00549	110	59.0-147	
1,2,3-Trichloropropane	0.00500	0.00434	86.8	73.0-130	
1,2,3-Trimethylbenzene	0.00500	0.00447	89.4	77.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00463	92.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00467	93.4	76.0-122	
Vinyl chloride	0.00500	0.00456	91.2	67.0-131	
Xylenes, Total	0.0150	0.0148	98.7	79.0-123	
(S) Toluene-d8		100		80.0-120	
(S) 4-Bromofluorobenzene		98.5		77.0-126	
(S) 1,2-Dichloroethane-d4		108		70.0-130	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Method Blank (MB)

(MB) R3484906-2 12/21/19 09:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Acetone	U		0.0100	0.0500	<sup>1</sup> Cp
Acrolein	U		0.00887	0.0500	<sup>2</sup> Tc
Acrylonitrile	U		0.00187	0.0100	<sup>3</sup> Ss
Benzene	U		0.000331	0.00100	<sup>4</sup> Cn
Bromobenzene	U		0.000352	0.00100	<sup>5</sup> Tr
Bromodichloromethane	U		0.000380	0.00100	<sup>6</sup> Sr
Bromoform	U		0.000469	0.00100	<sup>7</sup> Qc
Bromomethane	U		0.000866	0.00500	<sup>8</sup> Gl
n-Butylbenzene	U		0.000361	0.00100	<sup>9</sup> Al
sec-Butylbenzene	U		0.000365	0.00100	<sup>10</sup> Sc
tert-Butylbenzene	U		0.000399	0.00100	
Carbon tetrachloride	U		0.000379	0.00100	
Chlorobenzene	U		0.000348	0.00100	
Chlorodibromomethane	U		0.000327	0.00100	
Chloroethane	U		0.000453	0.00500	
Chloroform	U		0.000324	0.00500	
Chloromethane	U		0.000276	0.00250	
2-Chlorotoluene	U		0.000375	0.00100	
4-Chlorotoluene	U		0.000351	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	
1,2-Dibromoethane	U		0.000381	0.00100	
Dibromomethane	U		0.000346	0.00100	
1,2-Dichlorobenzene	U		0.000349	0.00100	
1,3-Dichlorobenzene	U		0.000220	0.00100	
1,4-Dichlorobenzene	U		0.000274	0.00100	
Dichlorodifluoromethane	U		0.000551	0.00500	
1,1-Dichloroethane	U		0.000259	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
1,1-Dichloroethene	U		0.000398	0.00100	
cis-1,2-Dichloroethene	U		0.000260	0.00100	
trans-1,2-Dichloroethene	U		0.000396	0.00100	
1,2-Dichloropropane	U		0.000306	0.00100	
1,1-Dichloropropene	U		0.000352	0.00100	
1,3-Dichloropropane	U		0.000366	0.00100	
cis-1,3-Dichloropropene	U		0.000418	0.00100	
trans-1,3-Dichloropropene	U		0.000419	0.00100	
2,2-Dichloropropane	U		0.000321	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	
Hexachloro-1,3-butadiene	U		0.000256	0.00100	



## Method Blank (MB)

(MB) R3484906-2 12/21/19 09:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Isopropylbenzene	U		0.000326	0.00100	<sup>1</sup> Cp
p-Isopropyltoluene	U		0.000350	0.00100	<sup>2</sup> Tc
2-Butanone (MEK)	U		0.00393	0.0100	<sup>3</sup> Ss
Methylene Chloride	U		0.00100	0.00500	<sup>4</sup> Cn
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	<sup>5</sup> Tr
Methyl tert-butyl ether	U		0.000367	0.00100	<sup>6</sup> Sr
Naphthalene	U		0.00100	0.00500	<sup>7</sup> Qc
n-Propylbenzene	U		0.000349	0.00100	<sup>8</sup> Gl
Styrene	U		0.000307	0.00100	<sup>9</sup> Al
1,1,2-Tetrachloroethane	U		0.000385	0.00100	<sup>10</sup> Sc
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	
Tetrachloroethene	U		0.000372	0.00100	
Toluene	U		0.000412	0.00100	
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	
1,2,3-Trichlorobenzene	U		0.000230	0.00100	
1,2,4-Trichlorobenzene	U		0.000355	0.00100	
1,1,1-Trichloroethane	U		0.000319	0.00100	
1,1,2-Trichloroethane	U		0.000383	0.00100	
Trichloroethene	U		0.000398	0.00100	
Trichlorofluoromethane	U		0.00120	0.00500	
1,2,3-Trichloropropane	U		0.000807	0.00250	
1,2,3-Trimethylbenzene	U		0.000321	0.00100	
1,2,4-Trimethylbenzene	U		0.000373	0.00100	
1,3,5-Trimethylbenzene	U		0.000387	0.00100	
Vinyl chloride	U		0.000259	0.00100	
Xylenes, Total	U		0.00106	0.00300	
(S) Toluene-d8	101			80.0-120	
(S) 4-Bromofluorobenzene	92.9			77.0-126	
(S) 1,2-Dichloroethane-d4	92.0			70.0-130	

## Laboratory Control Sample (LCS)

(LCS) R3484906-1 12/21/19 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0283	113	19.0-160	
Acrolein	0.0250	0.0269	108	10.0-160	
Acrylonitrile	0.0250	0.0255	102	55.0-149	
Benzene	0.00500	0.00474	94.8	70.0-123	



## Laboratory Control Sample (LCS)

(LCS) R3484906-1 12/21/19 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromobenzene	0.00500	0.00446	89.2	73.0-121	<sup>1</sup> Cp
Bromodichloromethane	0.00500	0.00484	96.8	75.0-120	<sup>2</sup> Tc
Bromoform	0.00500	0.00515	103	68.0-132	<sup>3</sup> Ss
Bromomethane	0.00500	0.00506	101	10.0-160	<sup>4</sup> Cn
n-Butylbenzene	0.00500	0.00450	90.0	73.0-125	<sup>5</sup> Tr
sec-Butylbenzene	0.00500	0.00457	91.4	75.0-125	<sup>6</sup> Sr
tert-Butylbenzene	0.00500	0.00470	94.0	76.0-124	<sup>7</sup> Qc
Carbon tetrachloride	0.00500	0.00510	102	68.0-126	<sup>8</sup> Gl
Chlorobenzene	0.00500	0.00533	107	80.0-121	<sup>9</sup> Al
Chlorodibromomethane	0.00500	0.00520	104	77.0-125	<sup>10</sup> Sc
Chloroethane	0.00500	0.00414	82.8	47.0-150	
Chloroform	0.00500	0.00470	94.0	73.0-120	
Chloromethane	0.00500	0.00411	82.2	41.0-142	
2-Chlorotoluene	0.00500	0.00455	91.0	76.0-123	
4-Chlorotoluene	0.00500	0.00440	88.0	75.0-122	
1,2-Dibromo-3-Chloropropane	0.00500	0.00335	67.0	58.0-134	
1,2-Dibromoethane	0.00500	0.00522	104	80.0-122	
Dibromomethane	0.00500	0.00509	102	80.0-120	
1,2-Dichlorobenzene	0.00500	0.00480	96.0	79.0-121	
1,3-Dichlorobenzene	0.00500	0.00495	99.0	79.0-120	
1,4-Dichlorobenzene	0.00500	0.00482	96.4	79.0-120	
Dichlorodifluoromethane	0.00500	0.00434	86.8	51.0-149	
1,1-Dichloroethane	0.00500	0.00469	93.8	70.0-126	
1,2-Dichloroethane	0.00500	0.00453	90.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00497	99.4	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00473	94.6	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00482	96.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00485	97.0	77.0-125	
1,1-Dichloropropene	0.00500	0.00477	95.4	74.0-126	
1,3-Dichloropropane	0.00500	0.00505	101	80.0-120	
cis-1,3-Dichloropropene	0.00500	0.00478	95.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00499	99.8	78.0-124	
2,2-Dichloropropane	0.00500	0.00435	87.0	58.0-130	
Di-isopropyl ether	0.00500	0.00467	93.4	58.0-138	
Ethylbenzene	0.00500	0.00517	103	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00359	71.8	54.0-138	
Isopropylbenzene	0.00500	0.00486	97.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00472	94.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0248	99.2	44.0-160	
Methylene Chloride	0.00500	0.00464	92.8	67.0-120	



## Laboratory Control Sample (LCS)

(LCS) R3484906-1 12/21/19 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Methyl-2-pentanone (MIBK)	0.0250	0.0239	95.6	68.0-142	<sup>1</sup> Cp
Methyl tert-butyl ether	0.00500	0.00463	92.6	68.0-125	<sup>2</sup> Tc
Naphthalene	0.00500	0.00276	55.2	54.0-135	<sup>3</sup> Ss
n-Propylbenzene	0.00500	0.00464	92.8	77.0-124	<sup>4</sup> Cn
Styrene	0.00500	0.00483	96.6	73.0-130	<sup>5</sup> Tr
1,1,2-Tetrachloroethane	0.00500	0.00522	104	75.0-125	<sup>6</sup> Sr
1,1,2,2-Tetrachloroethane	0.00500	0.00409	81.8	65.0-130	<sup>7</sup> Qc
Tetrachloroethene	0.00500	0.00546	109	72.0-132	<sup>8</sup> Gl
Toluene	0.00500	0.00500	100	79.0-120	<sup>9</sup> Al
1,1,2-Trichlorotrifluoroethane	0.00500	0.00544	109	69.0-132	<sup>10</sup> Sc
1,2,3-Trichlorobenzene	0.00500	0.00255	51.0	50.0-138	
1,2,4-Trichlorobenzene	0.00500	0.00320	64.0	57.0-137	
1,1,1-Trichloroethane	0.00500	0.00475	95.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00514	103	80.0-120	
Trichloroethene	0.00500	0.00516	103	78.0-124	
Trichlorofluoromethane	0.00500	0.00474	94.8	59.0-147	
1,2,3-Trichloropropane	0.00500	0.00454	90.8	73.0-130	
1,2,3-Trimethylbenzene	0.00500	0.00458	91.6	77.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00454	90.8	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00457	91.4	76.0-122	
Vinyl chloride	0.00500	0.00407	81.4	67.0-131	
Xylenes, Total	0.0150	0.0153	102	79.0-123	
(S) Toluene-d8		99.8		80.0-120	
(S) 4-Bromofluorobenzene		93.4		77.0-126	
(S) 1,2-Dichloroethane-d4		93.1		70.0-130	



## Method Blank (MB)

(MB) R3485114-3 12/22/19 12:41

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Chlorobenzene	U		0.000348	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	102			77.0-126
(S) 1,2-Dichloroethane-d4	96.4			70.0-130

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3485114-1 12/22/19 11:41 • (LCSD) R3485114-2 12/22/19 12:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Chlorobenzene	0.00500	0.00519	0.00522	104	104	80.0-121			0.576	20
1,2-Dichlorobenzene	0.00500	0.00509	0.00516	102	103	79.0-121			1.37	20
1,3-Dichlorobenzene	0.00500	0.00490	0.00494	98.0	98.8	79.0-120			0.813	20
1,4-Dichlorobenzene	0.00500	0.00510	0.00516	102	103	79.0-120			1.17	20
(S) Toluene-d8				108	108	80.0-120				
(S) 4-Bromofluorobenzene				101	101	77.0-126				
(S) 1,2-Dichloroethane-d4			97.2	97.6		70.0-130				

<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Method Blank (MB)

(MB) R3485788-1 12/24/19 19:10

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
TPH C6 - C12	U		0.600	0.900
TPH C12 - C28	U		0.600	0.900
TPH C28 - C35	U		0.600	0.900
TPH C6 - C35	U		0.600	0.900
(S) o-Terphenyl	99.8		70.0-130	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3485788-2 12/24/19 19:24 • (LCSD) R3485788-3 12/24/19 19:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
TPH C6 - C12	41.7	46.6	46.1	112	111	75.0-125			1.08	20
TPH C12 - C28	41.7	43.7	42.8	105	103	75.0-125			2.08	20
TPH C6 - C35	83.4	90.3	88.9	108	107	75.0-125			1.56	20
(S) o-Terphenyl				108	109	70.0-130				

<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Method Blank (MB)

(MB) R3486541-3 12/28/19 01:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l													
Anthracene	U		0.0000140	0.0000500													<sup>1</sup> Cp
Acenaphthene	U		0.0000100	0.0000500													<sup>2</sup> Tc
Acenaphthylene	U		0.0000120	0.0000500													<sup>3</sup> Ss
Benzo(a)anthracene	U		0.00000410	0.0000500													<sup>4</sup> Cn
Benzo(a)pyrene	U		0.0000116	0.0000500													<sup>5</sup> Tr
Benzo(b)fluoranthene	U		0.00000212	0.0000500													<sup>6</sup> Sr
Benzo(g,h,i)perylene	U		0.00000227	0.0000500													<sup>7</sup> Qc
Benzo(k)fluoranthene	U		0.0000136	0.0000500													<sup>8</sup> Gl
Chrysene	U		0.0000108	0.0000500													<sup>9</sup> Al
Dibenz(a,h)anthracene	U		0.00000396	0.0000500													<sup>10</sup> Sc
Fluoranthene	U		0.0000157	0.0000500													
Fluorene	U		0.00000850	0.0000500													
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500													
Naphthalene	0.0000611	<u>J</u>	0.0000198	0.000250													
Phenanthrene	U		0.00000820	0.0000500													
Pyrene	U		0.0000117	0.0000500													
Dibenzofuran	0.00000432	<u>J</u>	0.00000105	0.0000500													
(S) Nitrobenzene-d5	93.0			31.0-160													
(S) 2-Fluorobiphenyl	89.5			48.0-148													
(S) p-Terphenyl-d14	96.0			37.0-146													

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3486541-1 12/28/19 00:29 • (LCSD) R3486541-2 12/28/19 00:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00162	0.00163	81.0	81.5	67.0-134			0.615	20
Anthracene	0.00200	0.00169	0.00166	84.5	83.0	67.0-150			1.79	20
Acenaphthene	0.00200	0.00166	0.00166	83.0	83.0	65.0-138			0.000	20
Acenaphthylene	0.00200	0.00172	0.00170	86.0	85.0	66.0-140			1.17	20
Benzo(a)anthracene	0.00200	0.00162	0.00159	81.0	79.5	61.0-140			1.87	20
Benzo(a)pyrene	0.00200	0.00158	0.00155	79.0	77.5	60.0-143			1.92	20
Benzo(b)fluoranthene	0.00200	0.00149	0.00150	74.5	75.0	58.0-141			0.669	20
Benzo(g,h,i)perylene	0.00200	0.00155	0.00153	77.5	76.5	52.0-153			1.30	20
Benzo(k)fluoranthene	0.00200	0.00170	0.00157	85.0	78.5	58.0-148			7.95	20
Chrysene	0.00200	0.00161	0.00158	80.5	79.0	64.0-144			1.88	20
Dibenz(a,h)anthracene	0.00200	0.00158	0.00156	79.0	78.0	52.0-155			1.27	20
Fluoranthene	0.00200	0.00160	0.00158	80.0	79.0	69.0-153			1.26	20
Fluorene	0.00200	0.00175	0.00174	87.5	87.0	64.0-136			0.573	20



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3486541-1 12/28/19 00:29 • (LCSD) R3486541-2 12/28/19 00:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Indeno[1,2,3-cd]pyrene	0.00200	0.00158	0.00155	79.0	77.5	54.0-153			1.92	20
Naphthalene	0.00200	0.00174	0.00171	87.0	85.5	61.0-137			1.74	20
Phenanthrene	0.00200	0.00168	0.00165	84.0	82.5	62.0-137			1.80	20
Pyrene	0.00200	0.00163	0.00160	81.5	80.0	60.0-142			1.86	20
(S) Nitrobenzene-d5				87.0	83.0	31.0-160				
(S) 2-Fluorobiphenyl				81.0	80.5	48.0-148				
(S) p-Terphenyl-d14				88.0	85.5	37.0-146				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
MQL	Method Quantitation Limit.	<sup>2</sup> Tc
ND	Not detected at the Method Quantitation Limit.	<sup>3</sup> Ss
RDL	Reported Detection Limit.	<sup>4</sup> Cn
Rec.	Recovery.	<sup>5</sup> Tr
RPD	Relative Percent Difference.	<sup>6</sup> Sr
SDG	Sample Delivery Group.	<sup>7</sup> Qc
SDL	Sample Detection Limit.	<sup>8</sup> Gl
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>9</sup> Al
U	Not detected at the Sample Detection Limit.	<sup>10</sup> Sc
Unadj. MQL	Unadjusted Method Quantitation Limit.	
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier

### Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
T8	Sample(s) received past/too close to holding time expiration.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

- \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
- \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>1,6</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>1,4</sup>	2006
Texas	T104704245-18-15
Texas <sup>5</sup>	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

## Third Party Federal Accreditations

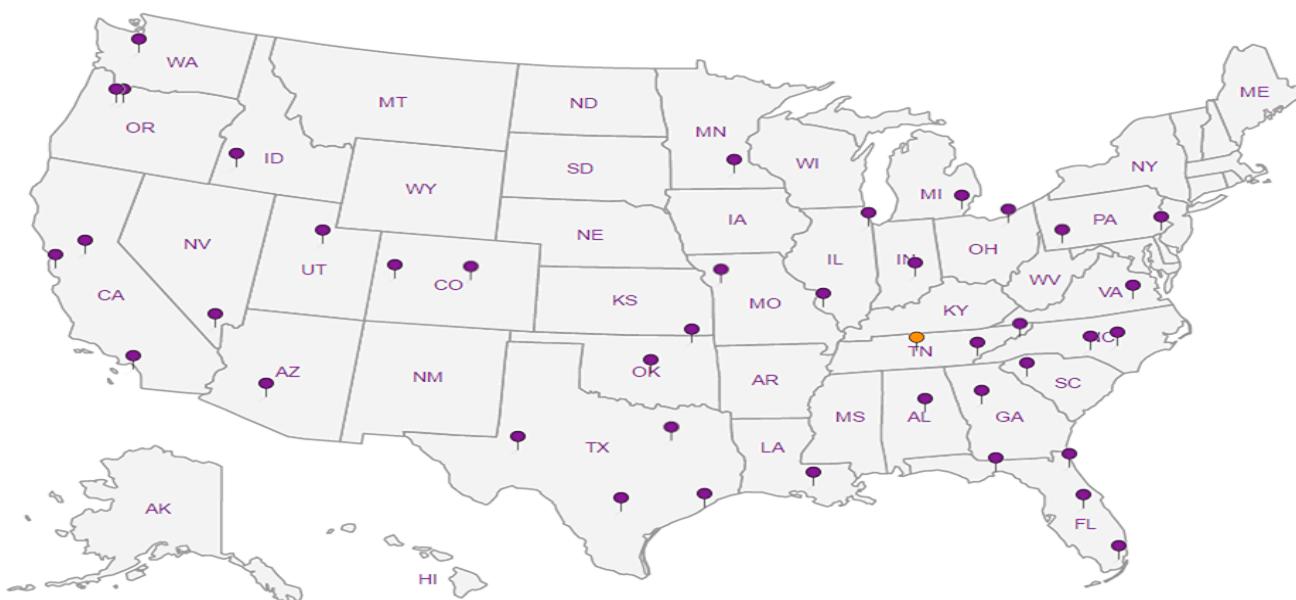
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

Terracon - Austin, TX  5307 Industrial Oaks, Suite 160 Austin, TX 78735			Billing Information:  Accounts Payable 5307 Industrial Oaks, Suite 160 Austin, TX 78735			Pres Chk	Analysis / Container / Preservative						Chain of Custody	Page <u>1</u> of <u>1</u>
									<u>12</u>					
Report to: Kevin Denson			Email To: kevin.denson@terracon.com; brian.mann@terracon.com;										12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Project Description: 6909 Ryan Lane		City/State Collected:		Please Circle: PT MT CT ET										
Phone: 512-442-1122 Fax: 512-442-1181	Client Project # 96197913		Lab Project # TERRATX-96197913											SDG # <u>L172661</u>
Collected by (print): <i>Craig Paul Rehman</i>	Site/Facility ID #		P.O. #											I017
Collected by (signature):	Rush? (Lab MUST Be Notified)		Quote #											Acctnum: TERRATX
Immediately Packed on Ice N <u>Y</u> ✓	Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day <input type="checkbox"/>		Date Results Needed <i>Normal TAT</i>				No. of Cntrs							Template: T159473
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		* HOLD-PAHs* 40mlAmb-NoPres-WT	M6020RCRA8 250mlHDPE-HN03	TPHTX 40mlAmbHCl-BT-trwted	V8260 40mlAmb-HCl				Prelogin: P741818
MW-1		GW		12/18/19	1300	8	X	X	X	X				PM: 526 - Chris McCord
MW-2		GW		12/17/19	1320	8	X	X	X	X				PB: <u>11-20-1966</u>
MW-3		GW		12/17/19	1340	8	X	X	X	X				Shipped Via: FedEx Ground
MW-4		GW		12/17/19	1400	8	X	X	X	X				Remarks      Sample # (lab only)
MW-5		GW		12/17/19	1415	8	X	X	X	X				-01
		GW				8	X	X	X	X				-02
														-03
														-04
														-05
* Matrix: SS - Soil   AIR - Air   F - Filter GW - Groundwater   B - Bioassay			Remarks:						pH _____	Temp _____	Sample Receipt Checklist			
									Flow _____	Other _____	COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			
													COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													If Applicable	
													VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
													RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Samples returned via: UPS   FedEx   Courier			Tracking # <u>1329 2023 3349</u>		Received by: (Signature)		Trip Blank Received: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If preservation required by Login: Date/Time					
Relinquished by: (Signature) <i>[Signature]</i>			Date: <u>12/18/19</u>	Time: <u>1415</u>			Temp: <u>As per °C</u> <u>0.4 ft. 2=0.6</u>		Bottles Received: <u>40</u>					
Relinquished by: (Signature)			Date:	Time:	Received by: (Signature)		Temp: <u>As per °C</u> <u>0.4 ft. 2=0.6</u>		Date: <u>12/19/19</u>	Time: <u>9:36</u>	Hold:	Condition:		
Relinquished by: (Signature)			Date:	Time:	Received for lab by: (Signature)		<i>CR</i>				NCF / OK			

Method: 8260B  
 Laboratory: Pace National  
 Date: 11/19/2019  
**DCS Confirmation**

Instrument: VOCMC20  
 Matrix: water

Analyte	Calculated Result (ppb)	LOD TV/Conc (ppb)	MDL (ppb)	% Rec
1,1,1,2-TETRACHLOROETHANE	0.5800037	0.5	0.385	116%
1,1,1-TRICHLOROETHANE	0.5449801	0.5	0.319	109%
1,1,2,2-TETRACHLOROETHANE	0.5395743	0.5	0.13	108%
1,1,2-TRICHLOROETHANE	0.5859787	0.5	0.383	117%
1,1,2-TRICHLOROTRIFLUOROMETHANE	0.6500713	0.5	0.303	130%
1,1-DICHLOROETHANE	0.549731	0.5	0.259	110%
1,1-DICHLOROETHENE	0.5076948	0.5	0.398	102%
1,1-Dichloropropene	0.5509719	0.5	0.352	110%
1,2,3-Trichlorobenzene	0.5678782	0.5	0.23	114%
1,2,3-TRICHLOROPROPANE	1.113387	1	0.807	111%
1,2,3-TRIMETHYLBENZENE	0.5785428	0.5	0.321	116%
1,2,4-Trichlorobenzene	0.4824208	0.5	0.355	96%
1,2,4-Trimethylbenzene	0.5014481	0.5	0.373	100%
1,2-Dibromo-3-chloropropane	1.7701442	2	1.33	89%
1,2-DIBROMOETHANE	0.6263951	0.5	0.381	125%
1,2-DICHLOROBENZENE	0.4961745	0.5	0.349	99%
1,2-DICHLOROETHANE	0.5211556	0.5	0.361	104%
1,2-DICHLOROPROPANE	0.6494061	0.5	0.306	130%
1,3,5-Trimethylbenzene	0.5785065	0.5	0.387	116%
1,3-BUTADIENE	0.5820946	0.5	0.33	116%
1,3-DICHLOROBENZENE	0.5057512	0.5	0.22	101%
1,3-Dichloropropane	0.5497886	0.5	0.366	110%
1,4-DICHLOROBENZENE	0.5482286	0.5	0.274	110%
1-Methylnaphthalene	1.6824597	2	2	84%
2,2,4-TRIMETHYL PENTANE	0.6532478	0.5	0.391	131%
2,2-Dichloropropane	0.5753797	0.5	0.321	115%
2-BUTANONE (MEK)	3.9978139	5	3.93	80%
2-CHLOROETHYL VINYL ETHER	9.9754169	10	10	100%
2-Chlorotoluene	0.5354509	0.5	0.375	107%
2-HEXANONE	5.1560689	5	3.82	103%
2-Methylnaphthalene	6.3899056	5	3.3	128%
4-Chlorotoluene	0.5164416	0.5	0.351	103%
4-ETHYL TOLUENE	0.5395707	0.5	0.172	108%
4-METHYL-2-PENTANONE (Methylpropanoate)	2.5454256	2.5	2.14	102%
ACETONE	7.770526	10	10	78%
ACROLEIN	10.2271483	10	8.87	102%
ACRYLONITRILE	2.5030654	2.5	1.87	100%
ALLYL CHLORIDE	2.5772002	2.5	1.7	103%
BENZENE	0.4710929	0.5	0.331	94%
Bromobenzene	0.5319382	0.5	0.352	106%
BROMOCHLOROMETHANE	0.5691074	0.5	0.45	114%
BROMODICHLOROMETHANE	0.4481719	0.5	0.38	90%
Bromoform	0.40473	0.5	0.469	81%
BROMOMETHANE	0.9822875	1	0.866	98%
CARBON DISULFIDE	0.5609886	0.5	0.275	112%
CARBON TETRACHLORIDE	0.5661817	0.5	0.379	113%
CHLOROBENZENE	0.547555	0.5	0.348	110%

CHLORODIBROMOMETHANE	0.5006845	0.5	0.327	100%
CHLOROETHANE	0.9567033	1	1	96%
CHLOROFORM	1.0028369	1	1	100%
CHLOROMETHANE	0.6083349	0.5	0.276	122%
CIS-1,2-DICHLOROETHENE	0.5555326	0.5	0.26	111%
CIS-1,3-DICHLOROPROPENE	0.5329654	0.5	0.418	107%
CYCLOHEXANE	0.6068215	0.5	0.39	121%
DIBROMOMETHANE	0.5054019	0.5	0.346	101%
DICHLORODIFLUOROMETHANE	0.8710038	1	0.551	87%
DICHLOROFLUOROMETHANE	1.1044554	1	1	110%
DICYCLOPENTADIENE	0.5682121	0.5	0.219	114%
DI-ISOPROPYL ETHER	0.5285091	0.5	0.32	106%
ETHANOL	42.3848855	50	42	85%
ETHYL ETHER	0.5634412	0.5	0.389	113%
ETHYL TERT-BUTYL ETHER	0.5551442	0.5	0.27	111%
ETHYLBENZENE	0.5593006	0.5	0.384	112%
HEPTANE	0.4827804	0.5	0.3	97%
HEXACHLORO-1,3-BUTADIENE	0.618621	0.5	0.256	124%
IODOMETHANE	2.4755639	2.5	1.71	99%
Isopropylbenzene	0.5608029	0.5	0.326	112%
M&P-XYLENE	1.0252732	1	0.719	103%
METHYL ACETATE	7.1137482	5	4.3	142%
METHYL CYCLOHEXANE	0.583701	0.5	0.38	117%
METHYL TERT-BUTYL ETHER	0.5506536	0.5	0.367	110%
METHYLENE CHLORIDE	0.8841327	1	1	88%
Naphthalene	0.9862105	1	1	99%
n-Butylbenzene	0.5066336	0.5	0.361	101%
n-Hexane	1.9541026	2	0.736	98%
n-Propylbenzene	0.5385751	0.5	0.349	108%
O-XYLENE	0.5605538	0.5	0.341	112%
p-Isopropyltoluene	0.5014132	0.5	0.35	100%
PROPENE	0.5434337	1	0.975	54%
sec-Butylbenzene	0.5496541	0.5	0.365	110%
STYRENE	0.4817707	0.5	0.307	96%
T-AMYL ALCOHOL	5.2316733	5	4.9	105%
TERT-AMYL ETHYL ETHER	0.4374332	0.5	5.9	87%
TERT-AMYL METHYL ETHER	0.504353	0.5	0.26	101%
TERT-BUTYL ALCOHOL	2.445146	2.5	2.4	98%
tert-Butylbenzene	0.56303	0.5	0.399	113%
TETRACHLOROETHENE	0.5650481	0.5	0.372	113%
TETRAHYDROFURAN	1.7533146	2	1.82	88%
TOLUENE	0.5526066	0.5	0.412	111%
TRANS-1,2-DICHLOROETHENE	0.5281689	0.5	0.396	106%
TRANS-1,3-DICHLOROPROPENE	0.4451396	0.5	0.419	89%
TRANS-1,4-DICHLORO-	0.7141746	1	0.866	71%
TRICHLOROETHENE	0.5516393	0.5	0.398	110%
TRICHLOROFLUOROMETHANE	1.9444128	2	1.2	97%
VINYL ACETATE	2.4448897	2.5	1.63	98%
VINYL CHLORIDE	0.5652391	0.5	0.259	113%

Method: TX1005  
Laboratory: Pace Analytical National  
Date: 11/11/2019  
File: 1111\_22  
**DCS Confirmation**

Instrument: SVG C25  
Matrix: water

Analyte	Result (mg/L)	Conc/TV	MDL (mg/L)	% Rec
TPH C12-C28	0.513	0.45	0.40	114%
TPH C6-C12	0.716	0.45	0.40	159%

**LOD Multi-component V1.0 9/14/11**

Method: 6020 Water  
 Laboratory: Pace National  
 Date: 11/22/2019  
 File: 071719ICPMS9

Instrument: ICPMS9

**DCS Study**

Analyte	Result (mg/L)	Conc/TV	MDL (ppm)	% Rec	LOD Range TV/MDL	LOD Criteria 1-4 (P)	ESC Criteria 20-200% Rec
Arsenic	0.00067	0.0005	0.000250	134%	2.0	P	P
Barium	0.00114	0.001	0.000360	114%	2.8	P	P
Cadmium	0.00057	0.0005	0.000160	114%	3.1	P	P
Chromium	0.00102	0.001	0.000540	102%	1.9	P	P
Lead	0.00108	0.001	0.000240	108%	4.2	P	P
Selenium	0.00048	0.0005	0.000380	97%	1.3	P	P
Silver	0.00055	0.0005	0.000310	109%	1.6	P	P

**LOD Multi-component V1.0 9/14/11**

Method: 7470A  
 Laboratory: Pace National  
 Date: 11/22/2019  
 File: 072419CVAA5 W

Instrument: CVAA6

**DCS Study**

Analyte	Result (mg/L)	Conc/TV	MDL (ppm)	% Rec	LOD Range TV/MDL	LOD Criteria 1-4 (P)	ESC Criteria 20-200% Rec
Mercury water	0.000108	0.000100	0.000049	108%	2.0	P	P

# ANALYTICAL REPORT

December 24, 2019

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Tr

<sup>6</sup>Sr

<sup>7</sup>Qc

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

## Terracon - Austin, TX

Sample Delivery Group: L1170906  
Samples Received: 12/14/2019  
Project Number: 96197913  
Description: 6909 Ryan Lane

Report To: Kevin Denson  
5307 Industrial Oaks, Suite 160  
Austin, TX 78735

Entire Report Reviewed By:



Chris McCord  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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ONE LAB. NATIONWIDE.



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## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Cody P.	Collected date/time 12/12/19 13:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 16:32	12/18/19 16:32	MBF	Mt. Juliet, TN
SV-1 L1170906-01 Air			Collected by Cody P.	Collected date/time 12/12/19 13:30	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 17:15	12/18/19 17:15	MBF	Mt. Juliet, TN
SV-2 L1170906-02 Air			Collected by Cody P.	Collected date/time 12/12/19 14:15	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 17:58	12/18/19 17:58	MBF	Mt. Juliet, TN
SV-3 L1170906-03 Air			Collected by Cody P.	Collected date/time 12/12/19 15:30	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 18:41	12/18/19 18:41	MBF	Mt. Juliet, TN
SV-4 L1170906-04 Air			Collected by Cody P.	Collected date/time 12/12/19 16:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 19:24	12/18/19 19:24	MBF	Mt. Juliet, TN
SV-5 L1170906-05 Air			Collected by Cody P.	Collected date/time 12/12/19 16:00	Received date/time 12/14/19 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1398635	1	12/18/19 19:24	12/18/19 19:24	MBF	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

- a. Items consistent with NELAC Chapter 5,
- b. dilution factors,
- c. preparation methods,
- d. cleanup methods, and
- e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

- a. Calculated recovery (%R), and
- b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

- a. LCS spiking amounts,
- b. Calculated %R for each analyte, and
- c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a. Samples associated with the MS/MSD clearly identified,
- b. MS/MSD spiking amounts,
- c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d. Calculated %Rs and relative percent differences (RPDs), and
- e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

- a. The amount of analyte measured in the duplicate,
- b. The calculated RPD, and
- c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Chris McCord  
Project Manager

## Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National			LRC Date: 12/24/2019 10:39				
Project Name: 6909 Ryan Lane			Laboratory Job Number: L1170906-01, 02, 03, 04 and 05				
Reviewer Name: Chris McCord			Prep Batch Number(s): WG1398635				
# <sup>1</sup>	A <sup>2</sup>	Description					
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?					
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.



Laboratory Name: Pace Analytical National		LRC Date: 12/24/2019 10:39					
Project Name: 6909 Ryan Lane		Laboratory Job Number: L1170906-01, 02, 03, 04 and 05					
Reviewer Name: Chris McCord		Prep Batch Number(s): WG1398635					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?				X	
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?				X	
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X	
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?				X	
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?				X	
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



Laboratory Name: Pace Analytical National	LRC Date: 12/24/2019 10:39
Project Name: 6909 Ryan Lane	Laboratory Job Number: L1170906-01, 02, 03, 04 and 05
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1398635
ER # <sup>1</sup>	Description
The Exception Report intentionally left blank, there are no exceptions applied to this SDG.	
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).	



## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	
Benzene	71-43-2	78.10	0.200	0.639	4.97	15.9		1	WG1398635	<sup>1</sup> Cp
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1398635	<sup>2</sup> Tc
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>3</sup> Ss
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>4</sup> Cn
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>5</sup> Tr
Ethylbenzene	100-41-4	106	0.200	0.867	1.17	5.07		1	WG1398635	<sup>6</sup> Sr
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.344	1.69		1	WG1398635	<sup>7</sup> Qc
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1398635	<sup>8</sup> Gl
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1398635	<sup>9</sup> Al
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1398635	<sup>10</sup> Sc
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1398635	
Toluene	108-88-3	92.10	0.200	0.753	4.08	15.4		1	WG1398635	
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1398635	
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.363	1.78		1	WG1398635	
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1398635	
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.388	1.81		1	WG1398635	
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1398635	
m&p-Xylene	1330-20-7	106	0.400	1.73	1.24	5.38		1	WG1398635	
o-Xylene	95-47-6	106	0.200	0.867	0.455	1.97		1	WG1398635	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.2				WG1398635	



## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	0.200	0.639	5.70	18.2		1	<a href="#">WG1398635</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1398635</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
Ethylbenzene	100-41-4	106	0.200	0.867	2.22	9.62		1	<a href="#">WG1398635</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.708	3.47		1	<a href="#">WG1398635</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1398635</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1398635</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1398635</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.232	1.58		1	<a href="#">WG1398635</a>
Toluene	108-88-3	92.10	0.200	0.753	7.15	26.9		1	<a href="#">WG1398635</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1398635</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.734	3.60		1	<a href="#">WG1398635</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.277	1.36		1	<a href="#">WG1398635</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.519	2.42		1	<a href="#">WG1398635</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1398635</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	2.35	10.2		1	<a href="#">WG1398635</a>
o-Xylene	95-47-6	106	0.200	0.867	0.860	3.73		1	<a href="#">WG1398635</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.1				<a href="#">WG1398635</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc



## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch	
Benzene	71-43-2	78.10	0.200	0.639	9.36	29.9		1	WG1398635	<sup>1</sup> Cp
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1398635	<sup>2</sup> Tc
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>3</sup> Ss
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>4</sup> Cn
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1398635	<sup>5</sup> Tr
Ethylbenzene	100-41-4	106	0.200	0.867	2.26	9.80		1	WG1398635	<sup>6</sup> Sr
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.397	1.95		1	WG1398635	<sup>7</sup> Qc
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1398635	<sup>8</sup> Gl
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1398635	<sup>9</sup> Al
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1398635	<sup>10</sup> Sc
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1398635	
Toluene	108-88-3	92.10	0.200	0.753	8.02	30.2		1	WG1398635	
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1398635	
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.433	2.13		1	WG1398635	
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1398635	
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	8.64	40.4		1	WG1398635	
Vinyl chloride	75-01-4	62.50	0.200	0.511	0.272	0.695		1	WG1398635	
m&p-Xylene	1330-20-7	106	0.400	1.73	1.94	8.41		1	WG1398635	
o-Xylene	95-47-6	106	0.200	0.867	0.744	3.23		1	WG1398635	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		92.7				WG1398635	



## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	0.200	0.639	1.67	5.33		1	<a href="#">WG1398635</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1398635</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.376	1.63		1	<a href="#">WG1398635</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.257	1.26		1	<a href="#">WG1398635</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1398635</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1398635</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1398635</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1398635</a>
Toluene	108-88-3	92.10	0.200	0.753	1.73	6.52		1	<a href="#">WG1398635</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1398635</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.276	1.35		1	<a href="#">WG1398635</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1398635</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.228	1.07		1	<a href="#">WG1398635</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	0.232	0.593		1	<a href="#">WG1398635</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.777	3.37		1	<a href="#">WG1398635</a>
o-Xylene	95-47-6	106	0.200	0.867	0.354	1.53		1	<a href="#">WG1398635</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.0				<a href="#">WG1398635</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc



## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Benzene	71-43-2	78.10	0.200	0.639	1.63	5.21		1	<a href="#">WG1398635</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1398635</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1398635</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.568	2.46		1	<a href="#">WG1398635</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.243	1.19		1	<a href="#">WG1398635</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1398635</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1398635</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1398635</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1398635</a>
Toluene	108-88-3	92.10	0.200	0.753	2.19	8.25		1	<a href="#">WG1398635</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1398635</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.300	1.47		1	<a href="#">WG1398635</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1398635</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.401	1.87		1	<a href="#">WG1398635</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1398635</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.823	3.57		1	<a href="#">WG1398635</a>
o-Xylene	95-47-6	106	0.200	0.867	0.324	1.40		1	<a href="#">WG1398635</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				<a href="#">WG1398635</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc

[L1170906-01,02,03,04,05](#)

## Method Blank (MB)

(MB) R3483779-3 12/18/19 11:26

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Isopropylbenzene	U		0.0563	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
Tetrachloroethylene	U		0.0497	0.200
Toluene	U		0.0499	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
(S)-1,4-Bromofluorobenzene	85.4		60.0-140	

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483779-1 12/18/19 10:00 • (LCSD) R3483779-2 12/18/19 10:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.24	4.71	113	126	70.0-130			10.5	25
1,1-Dichloroethene	3.75	4.47	4.69	119	125	70.0-130			4.80	25
MTBE	3.75	4.25	4.39	113	117	70.0-130			3.24	25
trans-1,2-Dichloroethene	3.75	4.38	4.59	117	122	70.0-130			4.68	25
cis-1,2-Dichloroethene	3.75	4.16	4.29	111	114	70.0-130			3.08	25
Benzene	3.75	4.50	4.67	120	125	70.0-130			3.71	25
1,2-Dichloroethane	3.75	4.46	4.62	119	123	70.0-130			3.52	25
Trichloroethylene	3.75	4.53	4.60	121	123	70.0-130			1.53	25
Toluene	3.75	4.35	4.49	116	120	70.0-130			3.17	25
Tetrachloroethylene	3.75	4.40	4.58	117	122	70.0-130			4.01	25
Ethylbenzene	3.75	4.45	4.54	119	121	70.0-130			2.00	25
m&p-Xylene	7.50	8.94	9.40	119	125	70.0-130			5.02	25
o-Xylene	3.75	4.37	4.60	117	123	70.0-130			5.13	25



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483779-1 12/18/19 10:00 • (LCSD) R3483779-2 12/18/19 10:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Ethyltoluene	3.75	4.28	4.60	114	123	70.0-130			7.21	25
1,3,5-Trimethylbenzene	3.75	4.27	4.88	114	130	70.0-130			13.3	25
1,2,4-Trimethylbenzene	3.75	4.23	4.66	113	124	70.0-130			9.67	25
Naphthalene	3.75	3.97	4.53	106	121	70.0-159			13.2	25
2,2,4-Trimethylpentane	3.75	4.44	4.54	118	121	70.0-130			2.23	25
Isopropylbenzene	3.75	4.32	4.64	115	124	70.0-130			7.14	25
(S) 1,4-Bromofluorobenzene				91.4	96.1	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Tr<sup>6</sup>Sr<sup>7</sup>Qc<sup>8</sup>Gl<sup>9</sup>Al<sup>10</sup>Sc



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
ND	Not detected at the Method Quantitation Limit.	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Tr
SDG	Sample Delivery Group.	<sup>6</sup> Sr
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>7</sup> Qc
U	Not detected at the Sample Detection Limit.	<sup>8</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Al
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	<sup>10</sup> Sc
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier      Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

- \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
- \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>1,6</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana <sup>1</sup>	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico <sup>1</sup>	n/a
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee <sup>1,4</sup>	2006
Texas	T104704245-18-15
Texas <sup>5</sup>	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

## Third Party Federal Accreditations

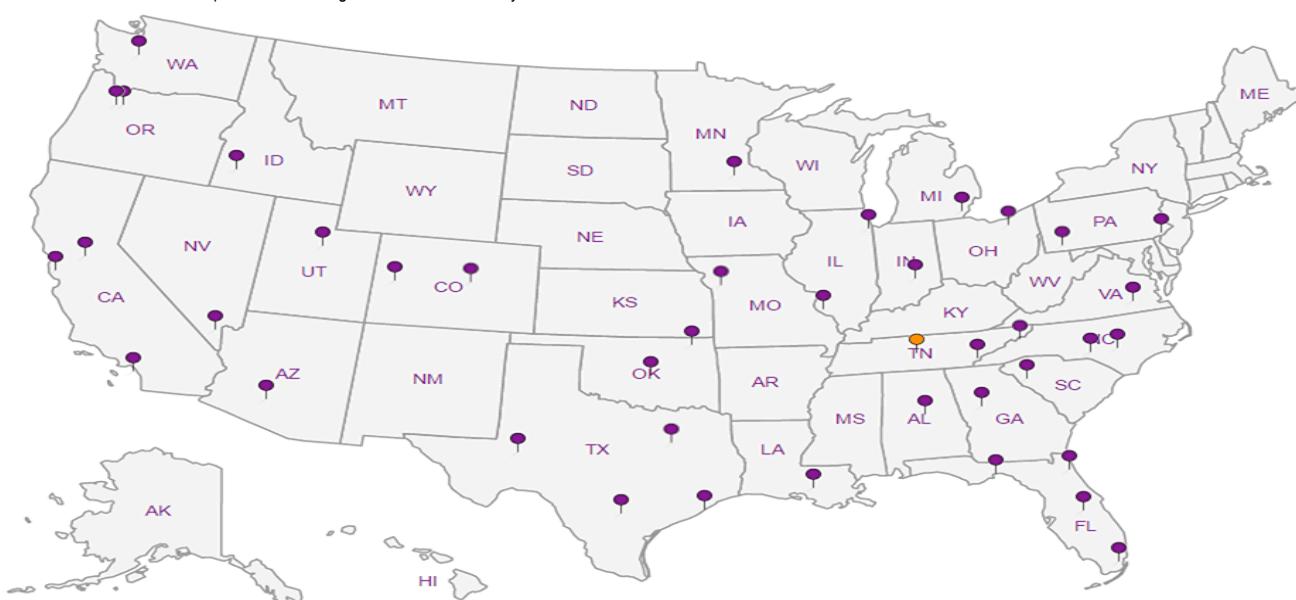
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Tr<sup>6</sup> Sr<sup>7</sup> Qc<sup>8</sup> Gl<sup>9</sup> Al<sup>10</sup> Sc



Method: TO-15  
Laboratory: Pace National  
Date: 11-18-19  
DCS Confirmation

Instrument: AIRMS1  
Matrix: Air

Analyte	Result (mg/L)	Conc/TV	MDL (ppb)	% Rec
1,1,1-Trichloroethane	0.2366625	0.19	0.0665	125%
1,1,2,2-Tetrachloroethane	0.2349738	0.19	0.0576	124%
1,1,2-Trichloroethane	0.2347707	0.19	0.0287	124%
1,1,2-Trichlorotrifluoroethane	0.2396591	0.19	0.0687	126%
1,1-Dichloroethane	0.2372213	0.19	0.0514	125%
1,1-Dichloroethene	0.2364863	0.19	0.049	124%
1,1-DIFLUOROETHANE	0.2405381	0.19	0.0325	127%
1,2,3-TRIMETHYLBENZENE	0.2343468	0.19	0.0325	123%
1,2,4-Trichlorobenzene	0.2049244	0.19	0.148	108%
1,2,4-Trimethylbenzene	0.2273445	0.19	0.0483	120%
1,2-Dibromoethane	0.2232543	0.19	0.0185	118%
1,2-Dichlorobenzene	0.2314614	0.19	0.0603	122%
1,2-Dichloroethane	0.2311724	0.19	0.0616	122%
1,2-Dichloropropane	0.2359238	0.19	0.0599	124%
1,2-Dichlorotetrafluoroethane	0.238955	0.19	0.0458	126%
1,3,5-Trimethylbenzene	0.2327664	0.19	0.0631	123%
1,3-Butadiene	0.2436458	0.19	0.0563	128%
1,3-Dichlorobenzene	0.2317869	0.19	0.0597	122%
1,4-Dichlorobenzene	0.2229822	0.19	0.0557	117%
1,4-Dioxane	0.2425272	0.19	0.0554	128%
2,2,4-Trimethylpentane	0.2293968	0.19	0.0456	121%
2-Butanone (MEK)	0.2311029	0.19	0.0493	122%
2-Chlorotoluene	0.2339995	0.19	0.0605	123%
2-Propanol	0.2405017	0.19	0.0882	127%
4-Ethyltoluene	0.2299248	0.19	0.0666	121%
4-Methyl-2-Pentanone (MIBK)	0.2365675	0.19	0.065	125%
Acetone	0.2553555	0.19	0.0569	134%
ACETONITRILE	0.9060141	0.95	0.235	95%
ACROLEIN	0.2381962	0.19	0.463	125%
ACRYLONITRILE	0.2249115	0.19	0.226	118%
Allyl Chloride	0.2224004	0.19	0.0546	117%
Benzene	0.2432873	0.19	0.046	128%
Benzyl Chloride	0.2041031	0.19	0.0598	107%
Bromodichloromethane	0.234413	0.19	0.0436	123%
BROMOETHANE	0.2311498	0.19	0.216	122%
Bromoform	0.2205847	0.19	0.0786	116%
Bromomethane	0.2374968	0.19	0.0609	125%

BUTANE	0.2675346	0.19	0.0522	141%
Carbon Disulfide	0.2401617	0.19	0.0544	126%
Carbon Tetrachloride	0.235874	0.19	0.0585	124%
Chlorobenzene	0.2336229	0.19	0.0601	123%
Chlorodibromomethane	0.2291663	0.19	0.0494	121%
CHLORODIFLUOROMETHANE	0.2133421	0.19	0.0325	112%
Chloroethane	0.2375937	0.19	0.0489	125%
Chloroform	0.241559	0.19	0.0574	127%
Chloromethane	0.2539637	0.19	0.0544	134%
cis-1,2-Dichloroethene	0.2393012	0.19	0.0389	126%
cis-1,3-Dichloropropene	0.220925	0.19	0.0588	116%
Cyclohexane	0.2335095	0.19	0.0534	123%
Dichlorodifluoromethane	0.2406992	0.19	0.0601	127%
DICYCLOPENTADIENE	0.2299784	0.19	0.0325	121%
Ethanol	0.2740346	0.19	0.0832	144%
ETHYL ACETATE	0.2478728	0.19	0.0325	130%
Ethylbenzene	0.2330933	0.19	0.0506	123%
Heptane	0.2403193	0.19	0.0626	126%
Hexachloro-1,3-Butadiene	0.2335859	0.19	0.0656	123%
Isopropylbenzene	0.229143	0.19	0.0563	121%
M&P-Xylene	0.461118	0.38	0.0946	121%
Methyl Butyl Ketone	0.2277294	0.19	0.0682	120%
METHYL CYCLOHEXANE	0.2316114	0.19	0.0325	122%
Methyl Methacrylate	0.2362529	0.19	0.0773	124%
Methyl Tert-Butyl Ether	0.2476701	0.19	0.0505	130%
Methylene Chloride	0.2481002	0.19	0.0465	131%
Naphthalene	0.2068336	0.19	0.154	109%
n-Butylbenzene	0.2236138	0.19	0.0531	118%
n-Hexane	0.230212	0.19	0.0457	121%
NONANE	0.2329245	0.19	0.0363	123%
n-Propylbenzene	0.2388507	0.19	0.0789	126%
O-Xylene	0.230658	0.19	0.0633	121%
PENTANE	0.2401994	0.19	0.0503	126%
Propene	0.2635608	0.19	0.0932	139%
sec-Butylbenzene	0.2351157	0.19	0.0789	124%
Styrene	0.2204081	0.19	0.0465	116%
TERT-AMYL ETHYL ETHER	0.2428301	0.19	0.0325	128%
TERT-BUTYL ALCOHOL	0.2401876	0.19	0.0581	126%
Tert-Butylbenzene	0.2333521	0.19	0.0789	123%
Tetrachloroethene	0.241122	0.19	0.0497	127%
Tetrahydrofuran	0.2453732	0.19	0.0508	129%
Toluene	0.2489096	0.19	0.0499	131%
TPH (GC/MS) Low Fraction	17.5290135	10.26	6.91	171%
Trans-1,2-Dichloroethene	0.2353265	0.19	0.0464	124%

trans-1,3-Dichloropropene	0.2142095	0.19	0.0435	113%
Trichloroethene	0.2287384	0.19	0.0545	120%
Trichlorofluoromethane	0.2240715	0.19	0.0673	118%
Vinyl Acetate	0.2153734	0.19	0.0639	113%
Vinyl Bromide	0.2344208	0.19	0.0727	123%
Vinyl Chloride	0.2348558	0.19	0.0457	124%